ARCHITECTS AND BUILDERS MANUAL

STEEL FRAME HOUSE CO.
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION
OLIVER BUILDING - - - - PITTSBURGH, PA.

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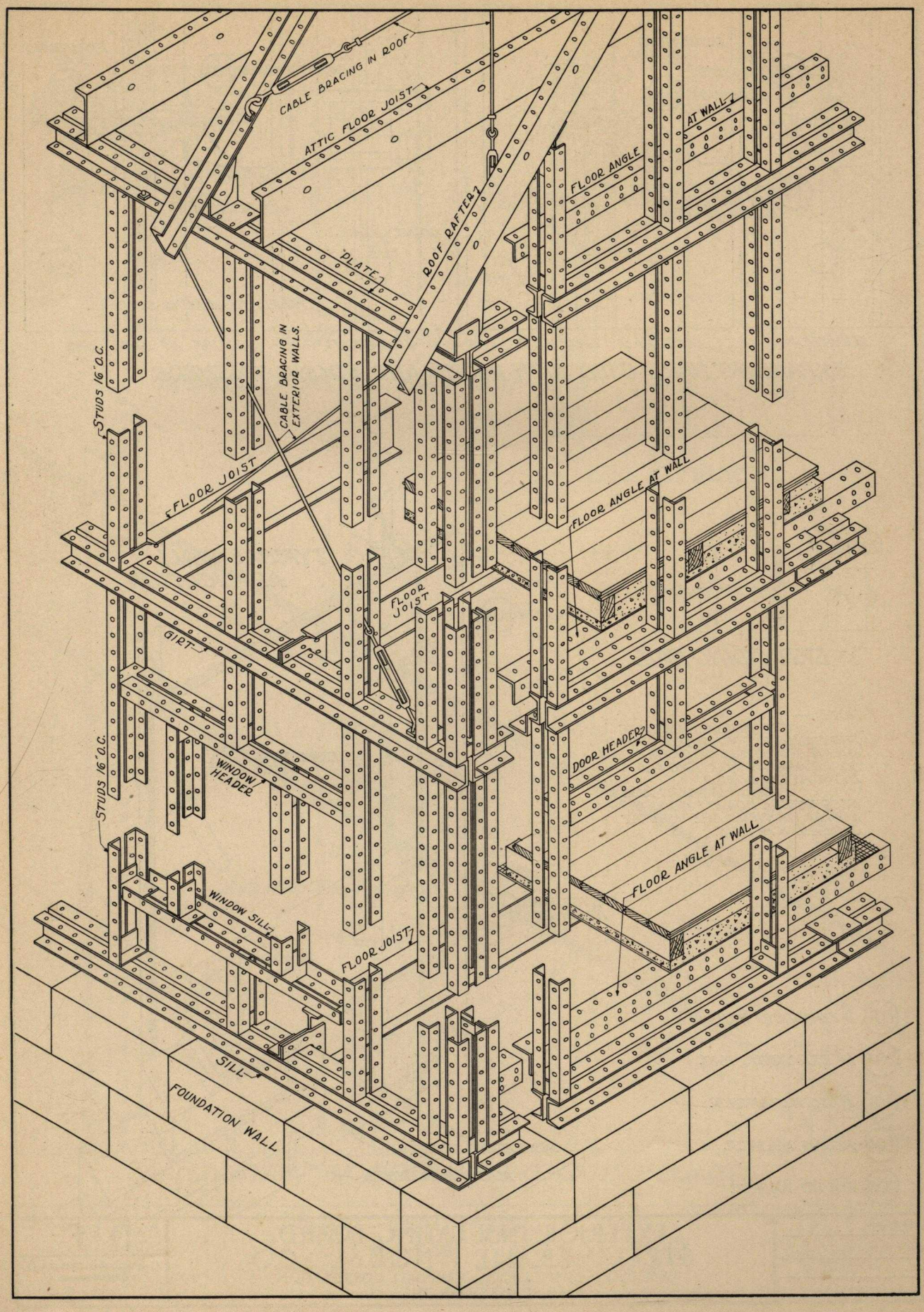
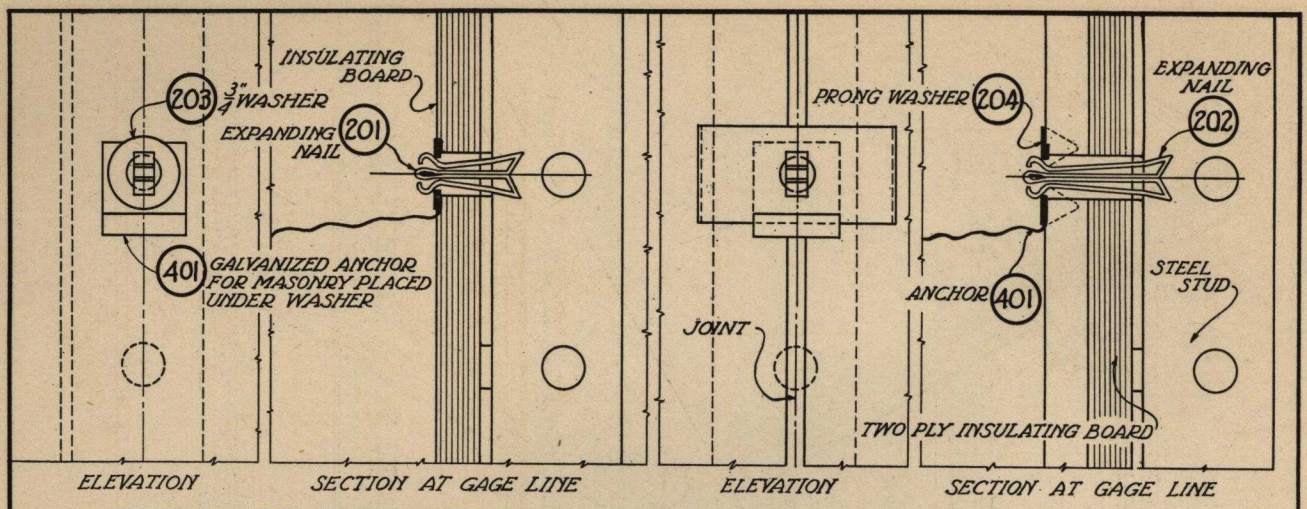
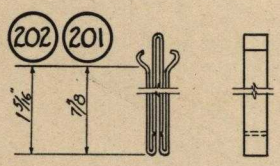

CABLE BRACING IN ROOF
ATTIC FLOOR JOIST
PLATE
ROOF RAFTER
FLOOR ANGLE AT WALL
STUDS 16" O.C.
CABLE BRACING IN EXTERIOR WALLS.
FLOOR JOIST
FLOOR ANGLE AT WALL
FLOOR JOIST
GIRT
DOOR HEADER
STUDS 16" O.C.
WINDOW HEADER
FLOOR ANGLE AT WALL
WINDOW SILL
FLOOR JOIST
SILL
FOUNDATION WALL

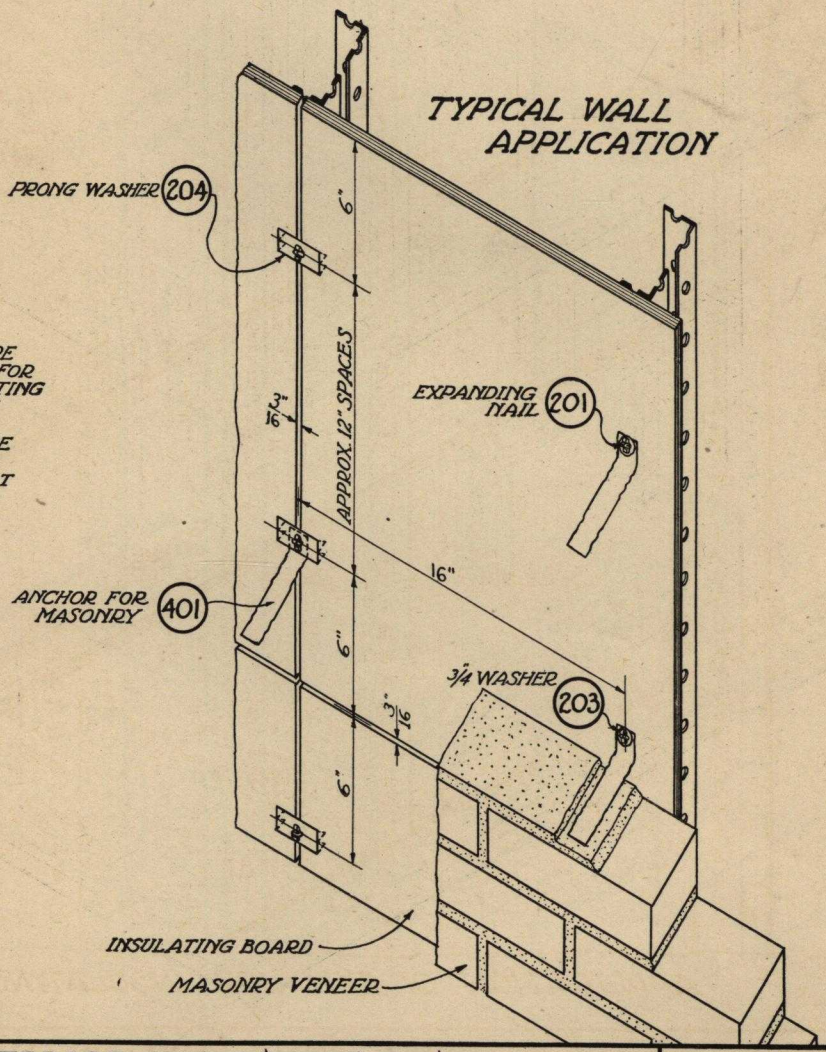


EXPANDING NAILS USED WITH ROUND AND PRONG WASHERS



EXPANDING NAIL

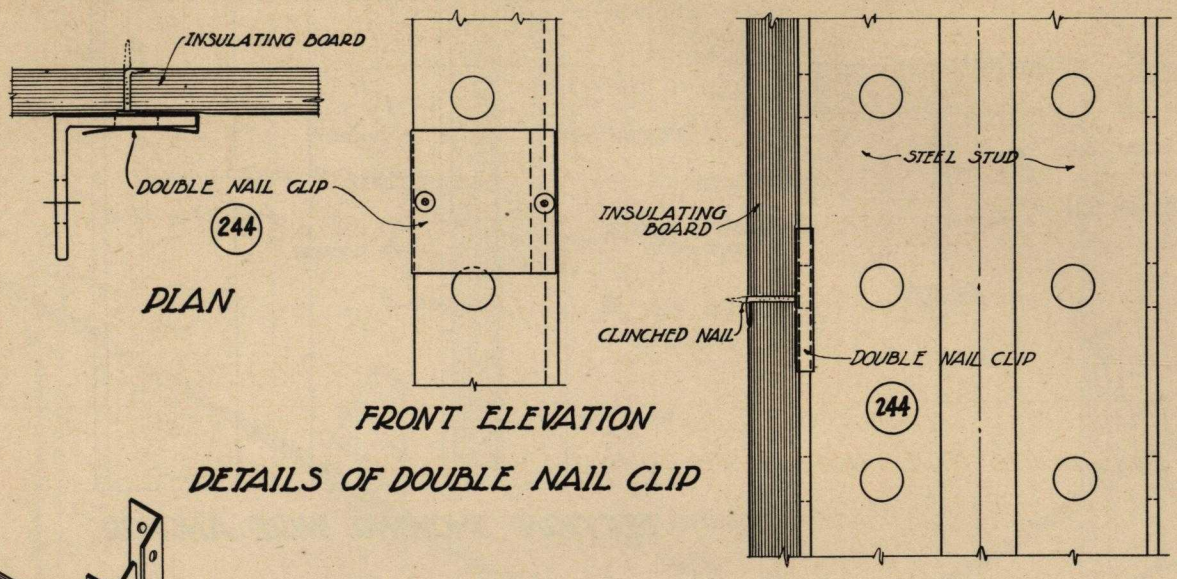
NOTE:—
EXPANDING NAILS ARE FURNISHED IN TWO SIZES. 7/8" FOR SINGLE THICKNESS OF INSULATING BOARD AND 1 5/16 FOR TWO PLY INSULATING BOARD.
PRONG WASHERS ARE USED WHERE BOARDS ADJOIN. ROUND WASHERS ARE USED AT OTHER LOCATIONS.



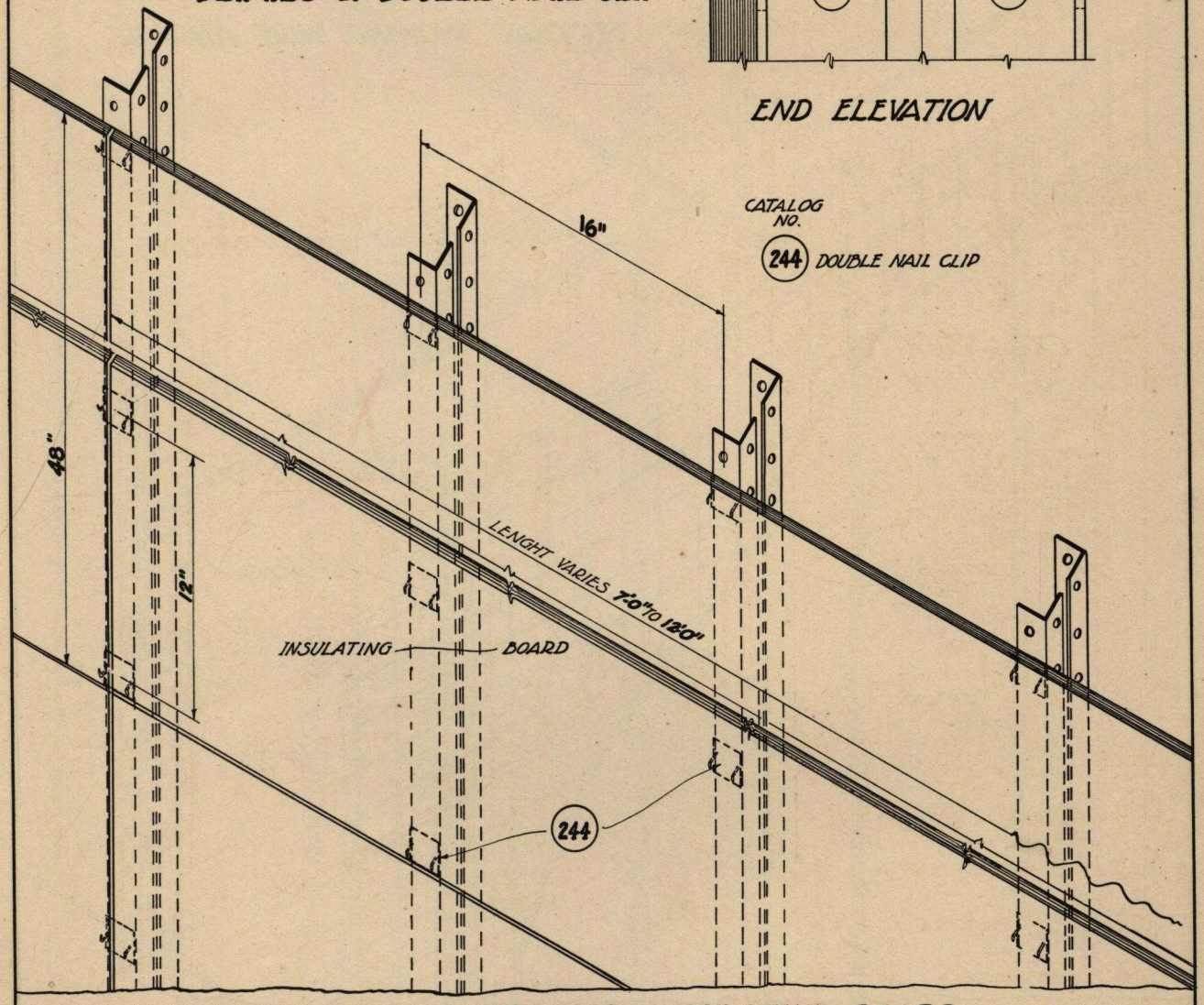
CATALOG NO.

- 201 7/8" EXPANDING NAIL
- 202 1 5/16" EXPANDING NAIL
- 401 MASONRY ANCHOR
- 204 PRONG WASHER
- 203 ROUND WASHER

DATE	EXTERIOR INSULATING BOARD STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-1 0" 0" 6" 1' SCALE

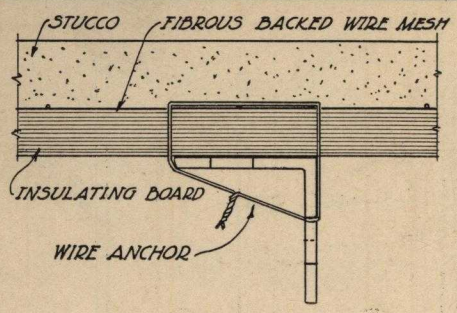


DETAILS OF DOUBLE NAIL CLIP

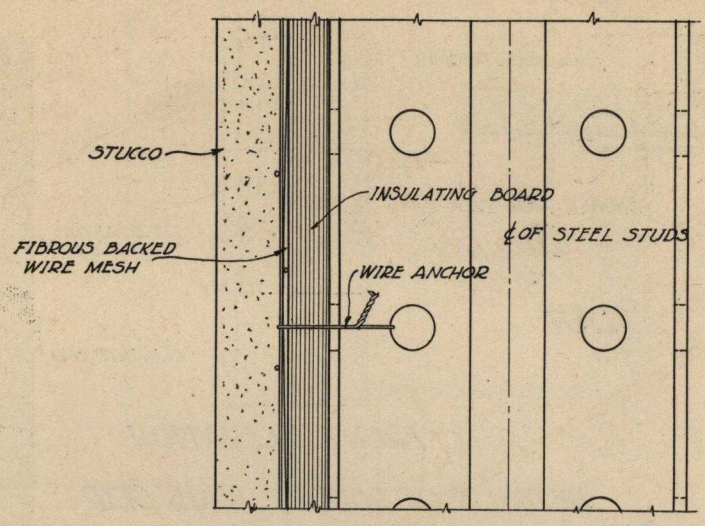


APPLICATION OF EXTERIOR INSULATING BOARD

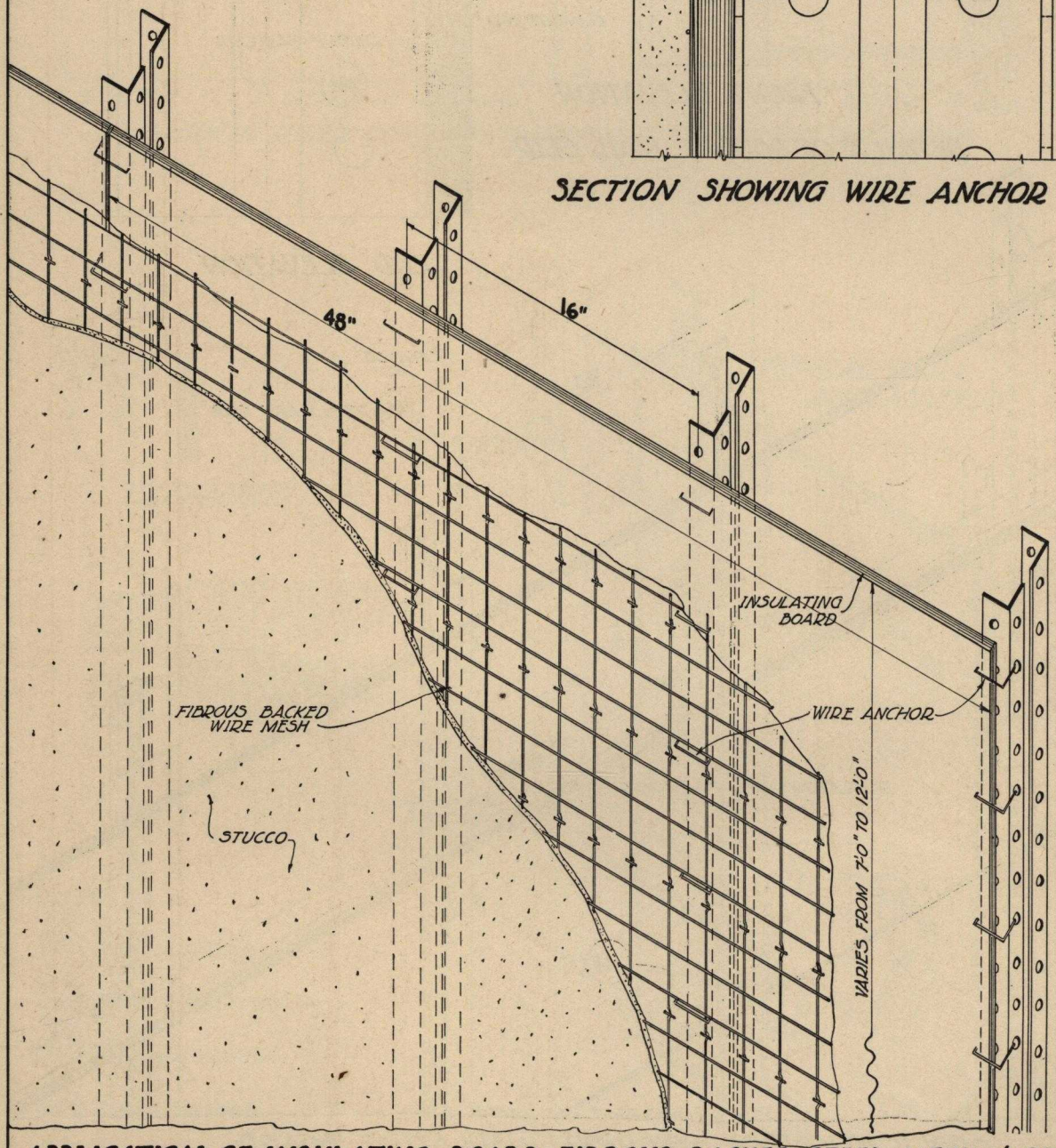
DATE.	FIBRE INSULATING BOARD STEEL FRAME HOUSE CO SUBSIDIARY · OF · Mc CLINTIC · MARSHALL · CORPORATION PITTSBURGH	D - 1A 0" 6" 0" 1" SCALE



PLAN

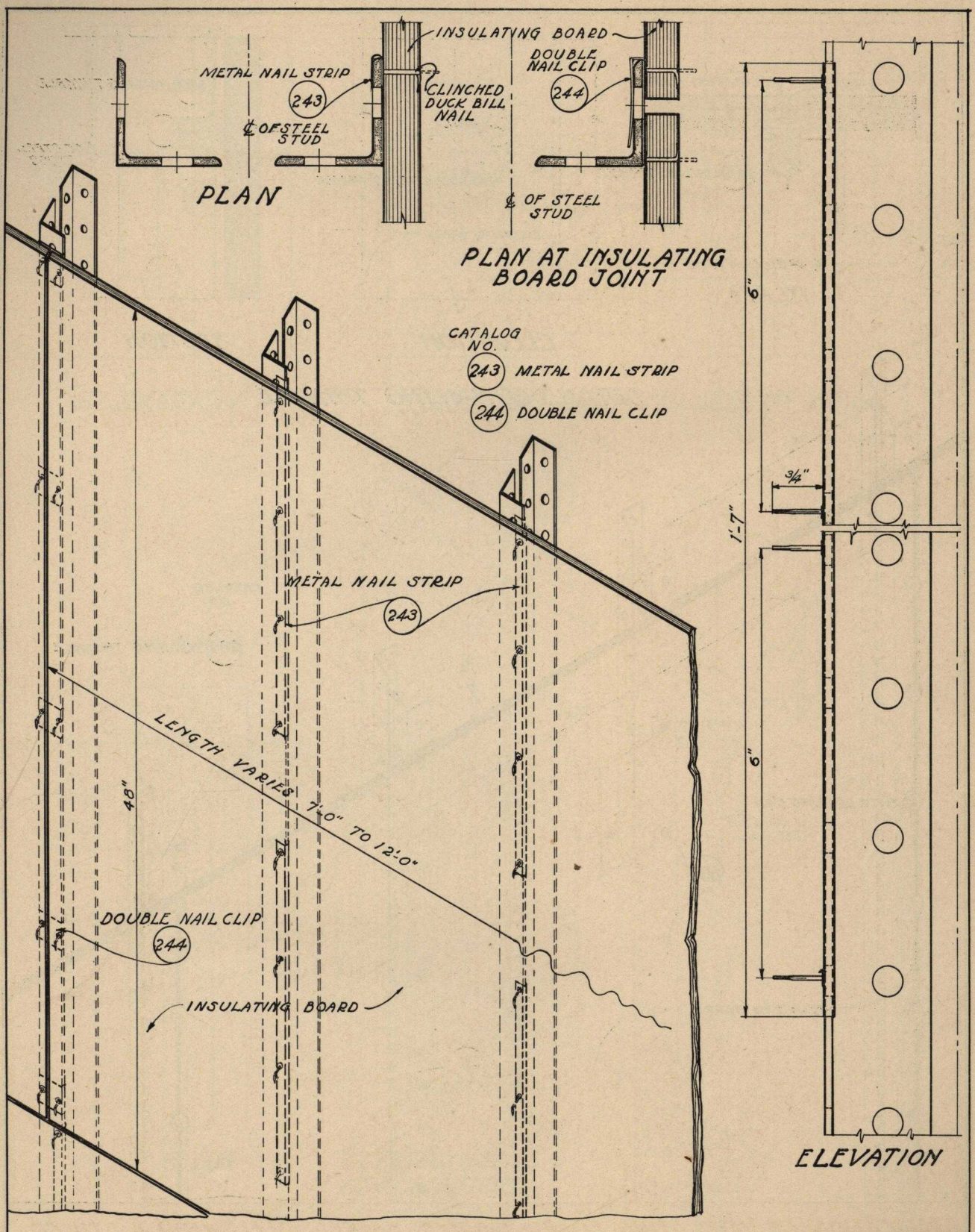


SECTION SHOWING WIRE ANCHOR



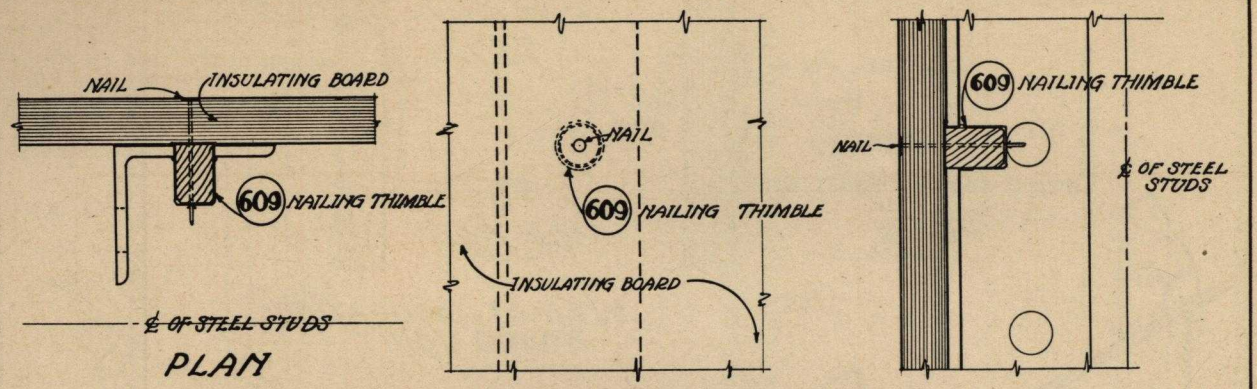
APPLICATION OF INSULATING BOARD, FIBROUS BACKED STEEL MESH & STUCCO

DATE	STUCCO STEEL FRAME HOUSE CO SUBSIDIARY · OF · Mc CLINTIC · MARSHALL · CORPORATION PITTSBURGH	D-1B 0" 6" 0" 1" SCALE

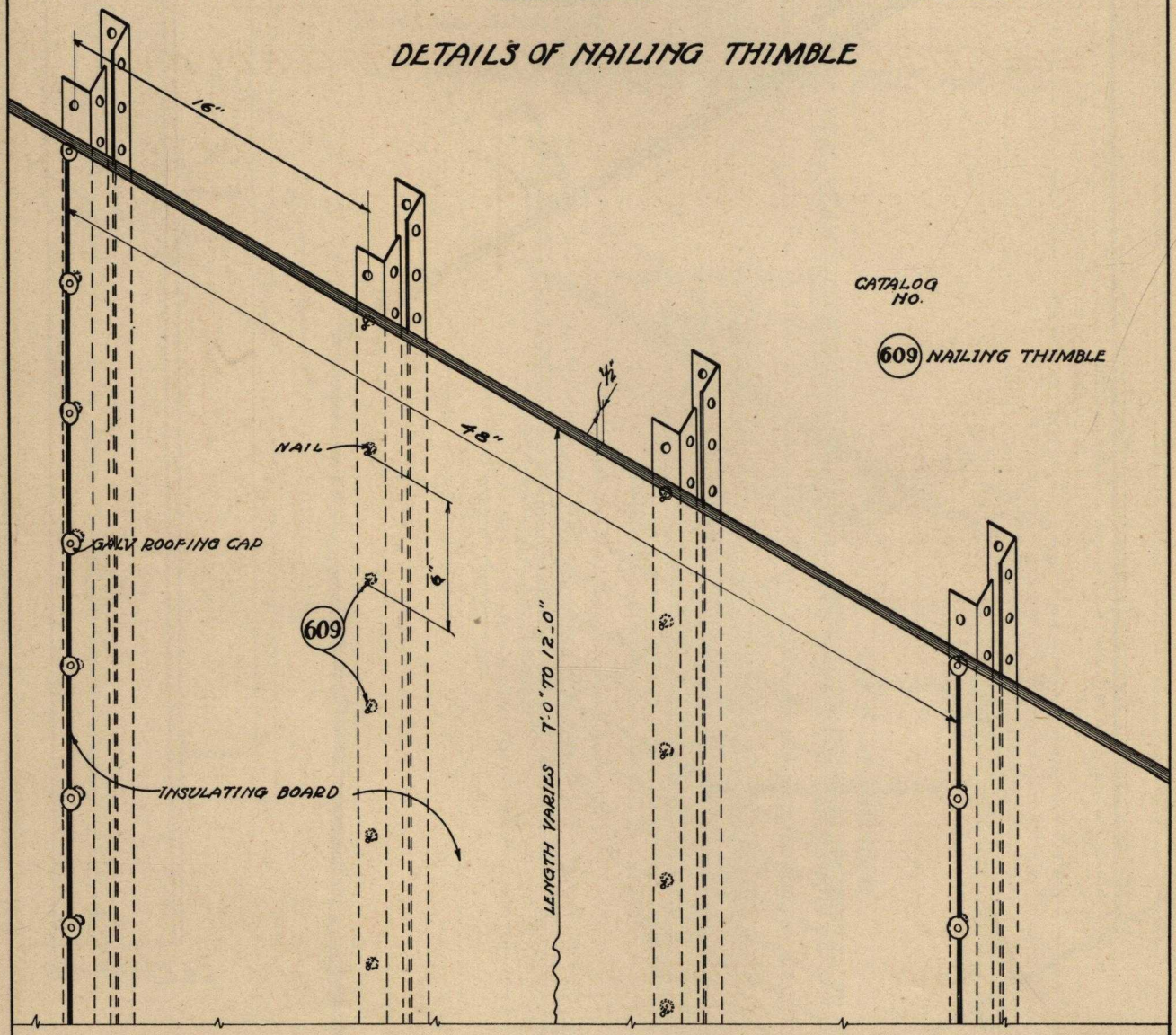


APPLICATION OF INSULATING BOARD

DATE	FIBRE INSULATING BOARD STEEL · FRAME · HOUSE · CO · SUBSIDIARY · OF · Mc CLINTIC - MARSHALL · CORPORATION · PITTSBURGH	D-1-C 0" 6" 0" 1' SCALE



DETAILS OF NAILING THIMBLE



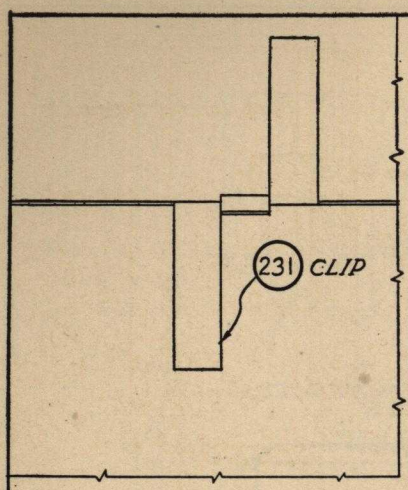
APPLICATION OF INSULATING BOARD

DATE

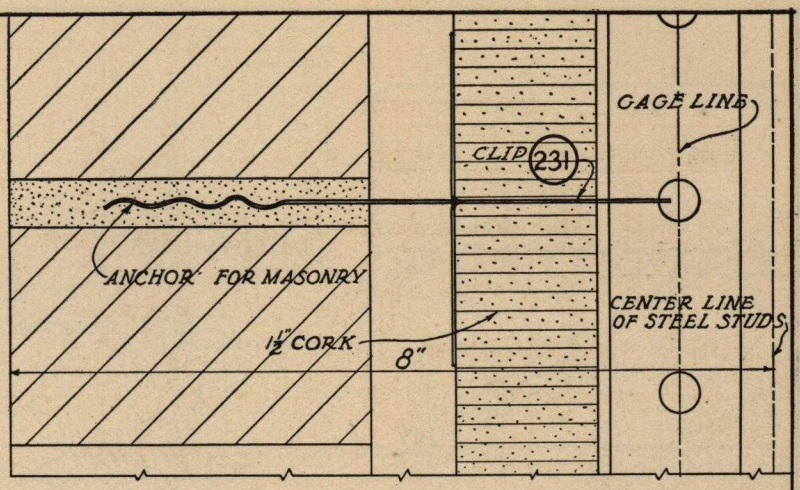
FIBRE INSULATING BOARD
STEEL FRAME HOUSE CO
SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION
PITTSBURGH

D-1-D

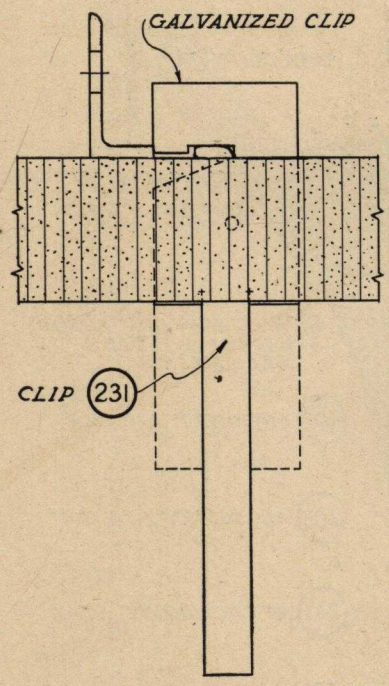
0" 0"
0 1"
SCALE



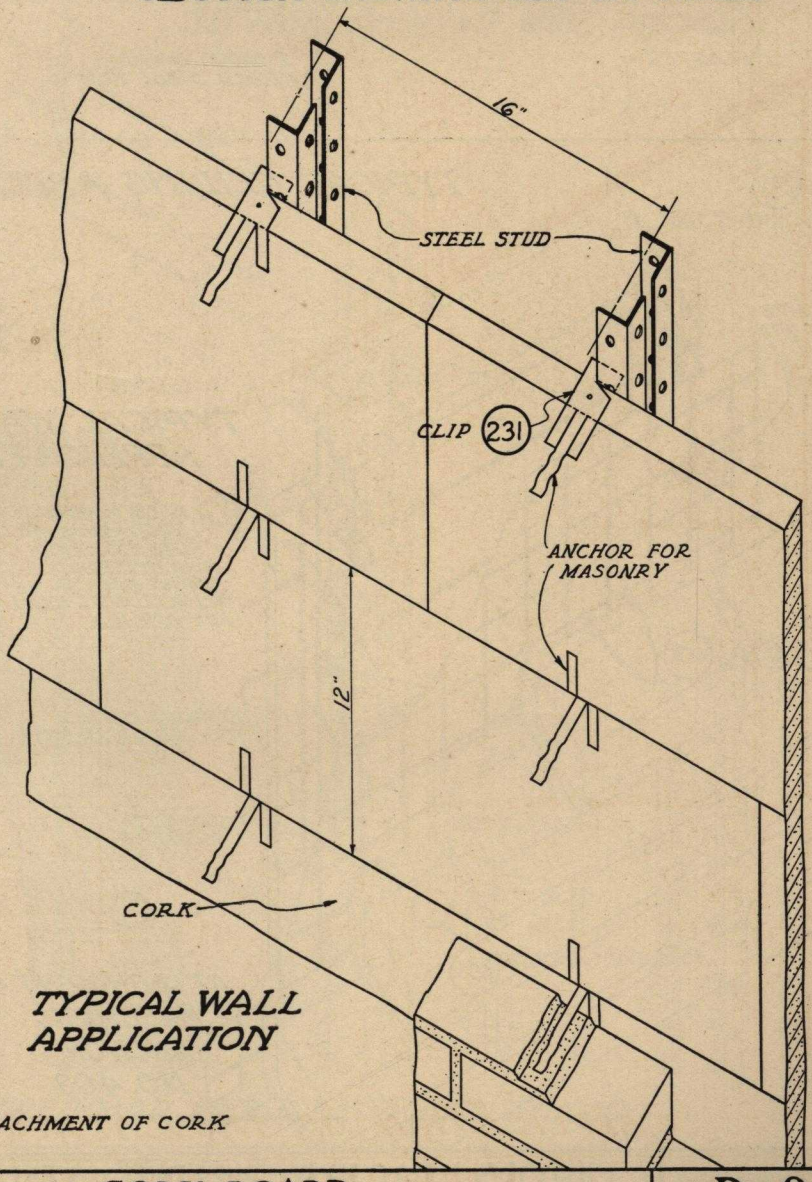
ELEVATION



SECTION SHOWING CLIP IN WALL



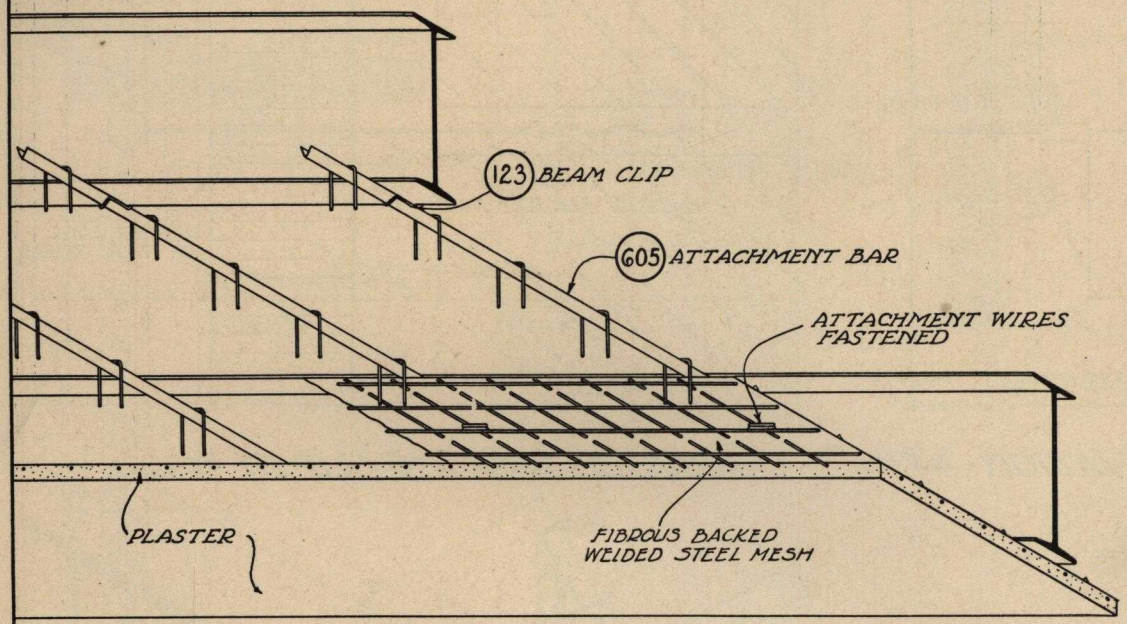
PLAN



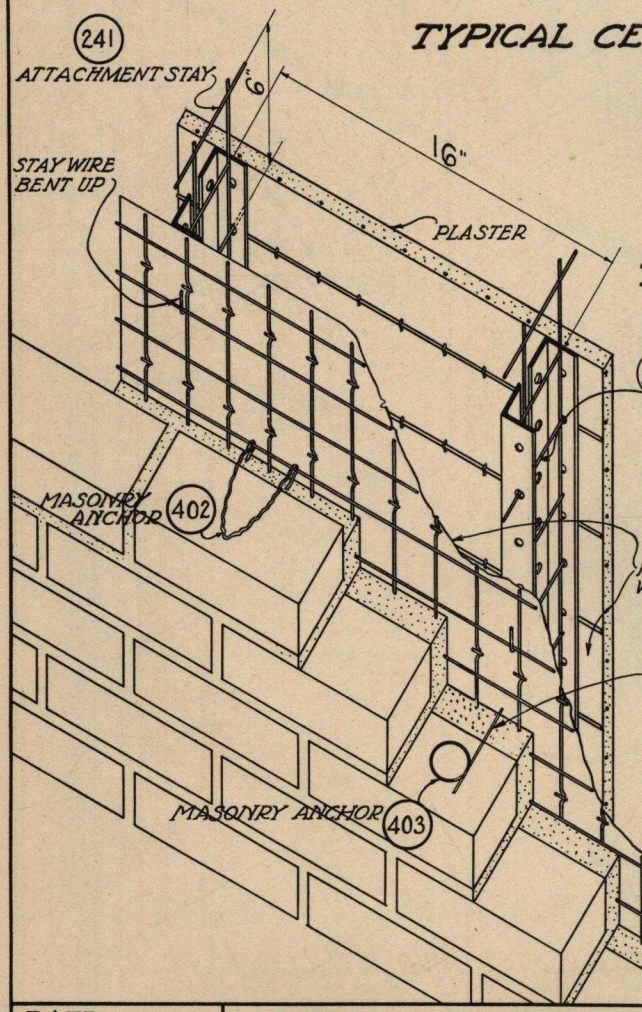
TYPICAL WALL APPLICATION

CATALOG NO. 231 GALVANIZED CLIP FOR ATTACHMENT OF CORK

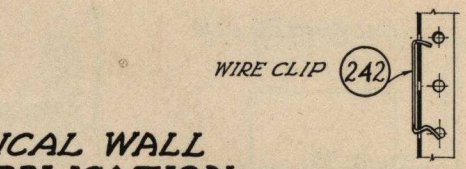
DATE.	CORK BOARD STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC - MARSHALL CORPORATION PITTSBURGH	D - 2 0" — 6" 0" — 1" SCALE



TYPICAL CEILING APPLICATION



TYPICAL WALL APPLICATION

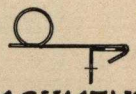


ATTACHMENT OF WIRE CLIP

241 ATTACHMENT STAY USED ONLY WHEN BOTH EXTERIOR AND INTERIOR FIBROUS BACKED WELDED STEEL MESH ARE APPLIED.

FIBROUS BACKED WELDED STEEL MESH

CEMENT MORTAR



ATTACHMENT OF MASONRY ANCHOR NO. 403

CATALOG NO.

242 WIRE CLIP FOR FIBROUS BACKED WELDED STEEL MESH

402 MASONRY ANCHOR

403 MASONRY ANCHOR

241 ATTACHMENT STAY

123 BEAM CLIP

605 ATTACHMENT BAR

DATE

FIBROUS BACKED WELDED STEEL MESH

STEEL FRAME HOUSE CO

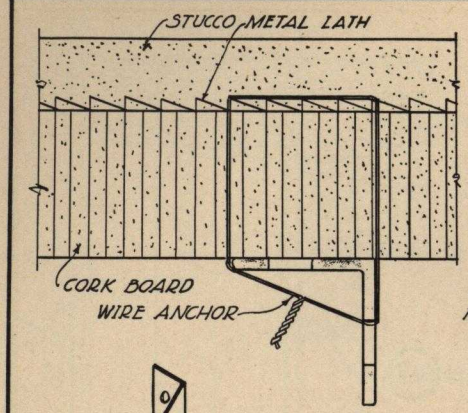
SUBSIDIARY OF McCLINTIC MARSHALL CORPORATION

PITTSBURGH

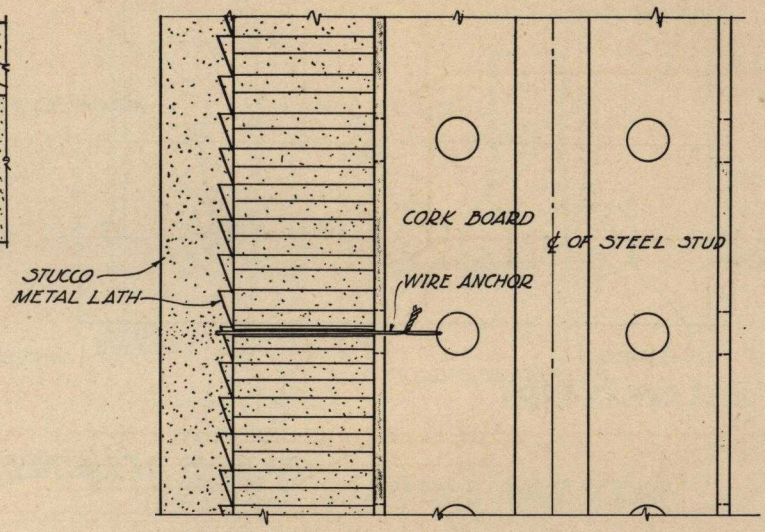
D-2A

0" — 6"

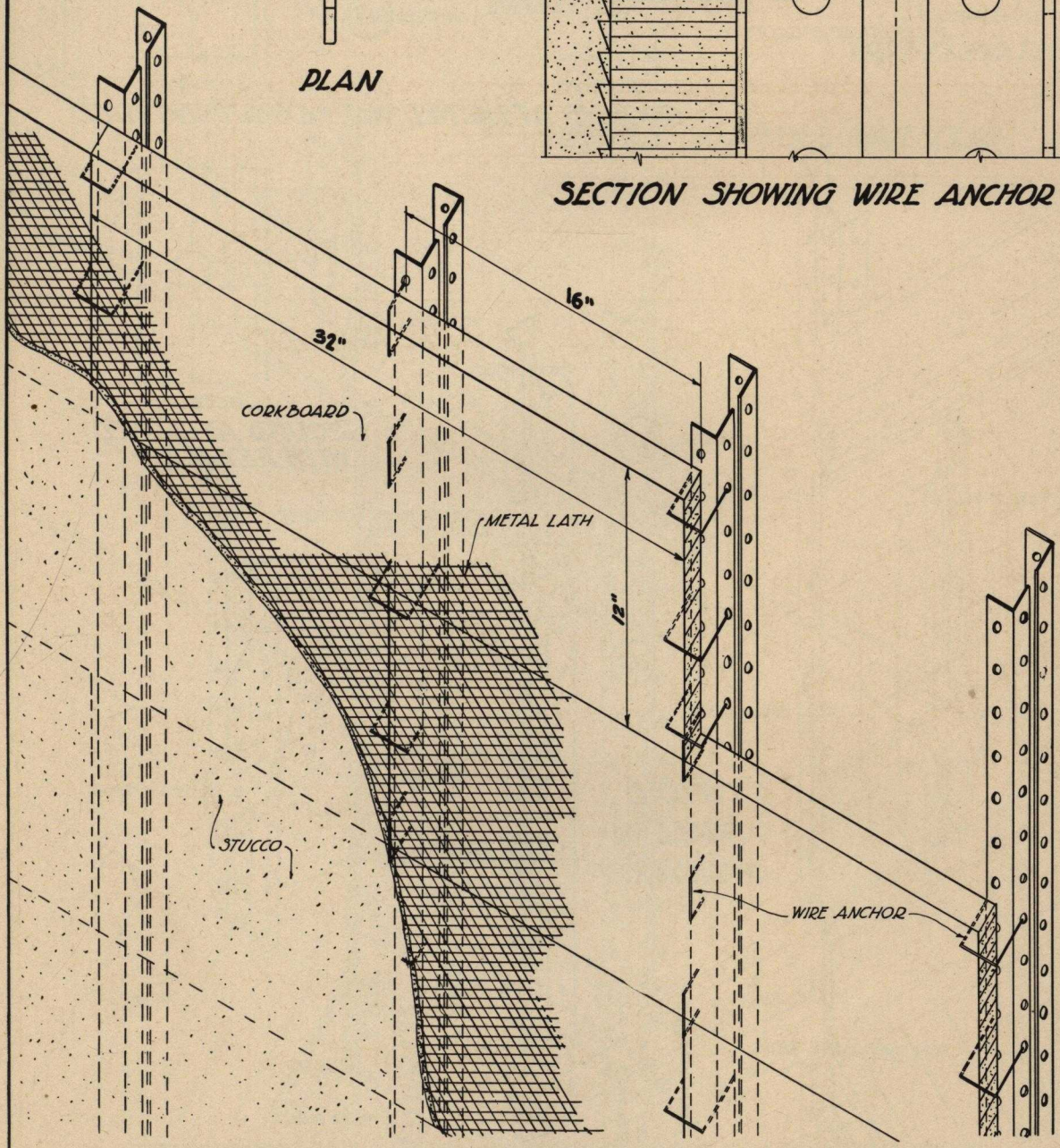
SCALE



PLAN

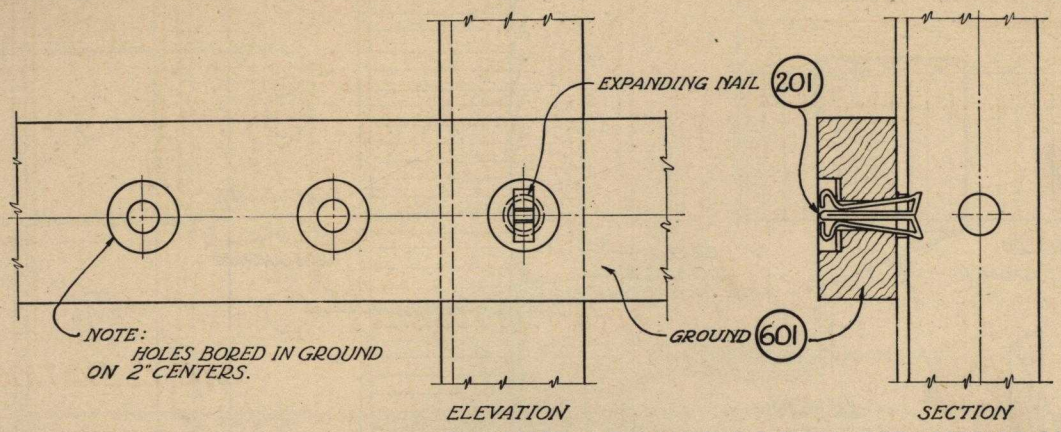


SECTION SHOWING WIRE ANCHOR

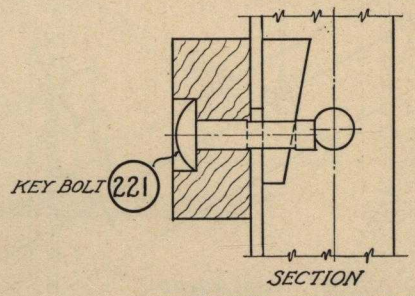


APPLICATION OF CORKBOARD, METAL LATH AND STUCCO

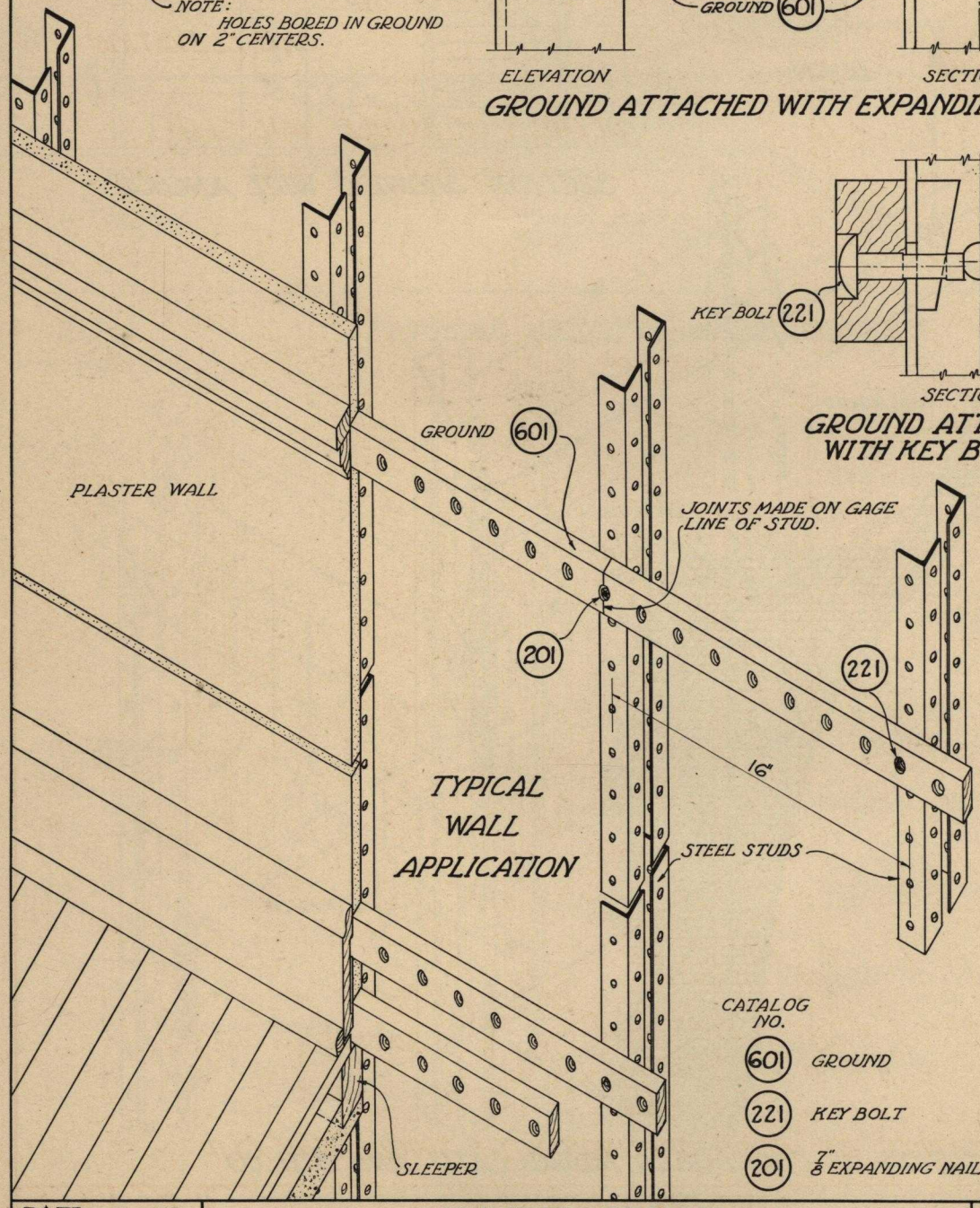
DATE	STUCCO STEEL FRAME HOUSE CO SUBSIDIARY · OF · Mc CLINTIC · MARSHALL · CORPORATION PITTSBURGH	D-2B 0" 6" 0" 1" SCALE



GROUND ATTACHED WITH EXPANDING NAIL



GROUND ATTACHED WITH KEY BOLT



TYPICAL WALL APPLICATION

CATALOG NO.

601	GROUND
221	KEY BOLT
201	7/8" EXPANDING NAIL

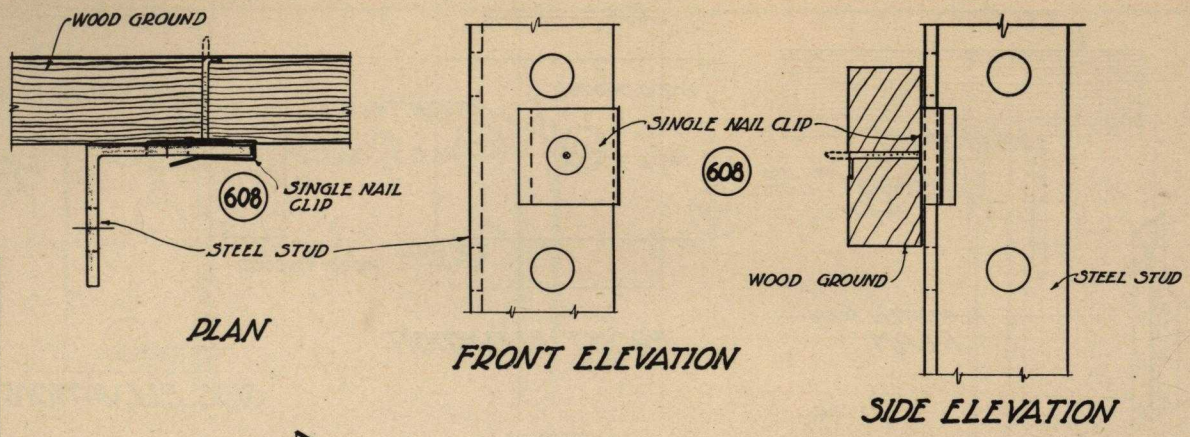
DATE

PLASTER GROUND
STEEL FRAME HOUSE CO

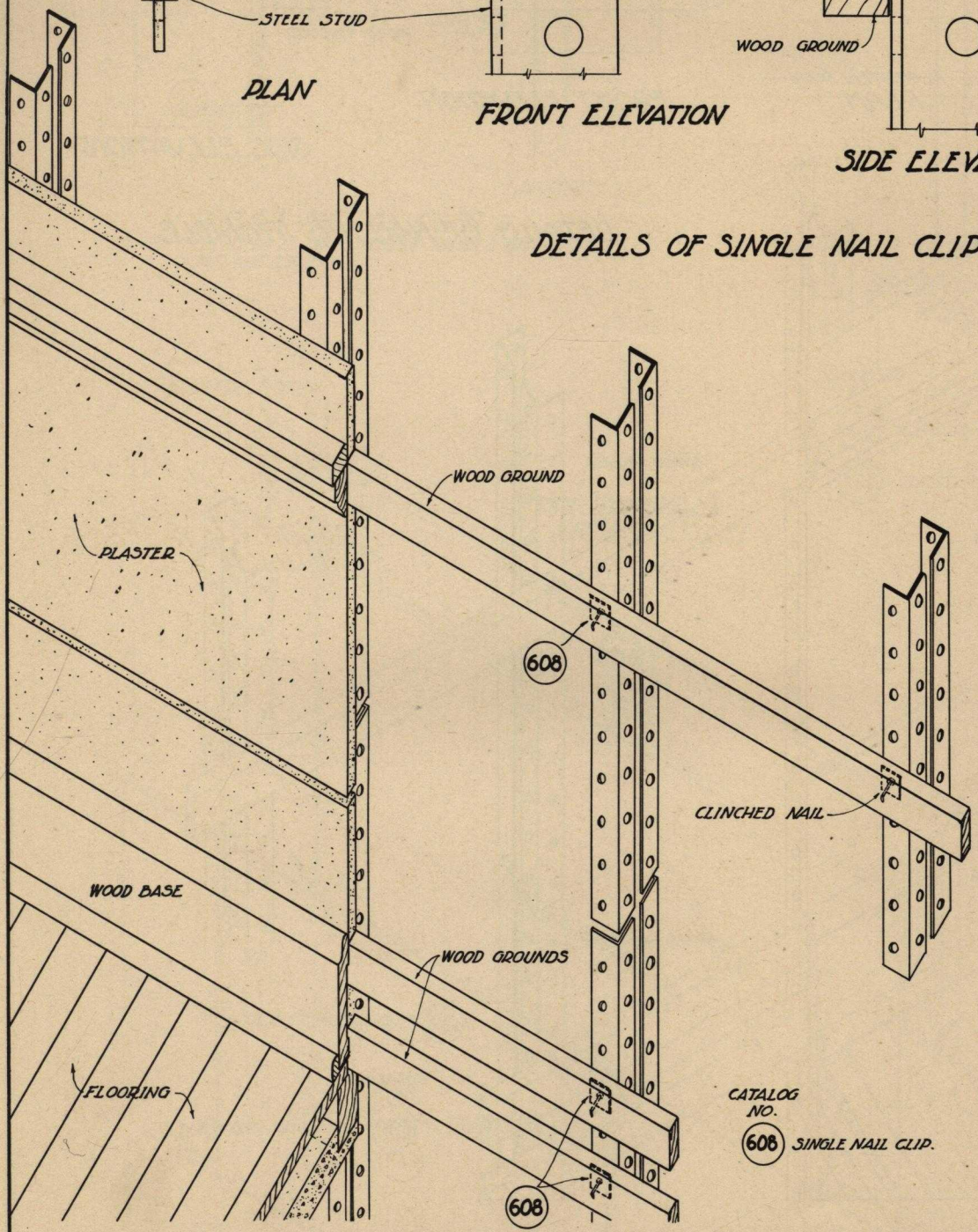
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION
PITTSBURGH

D-3

0" 6"
0' 1'
SCALE

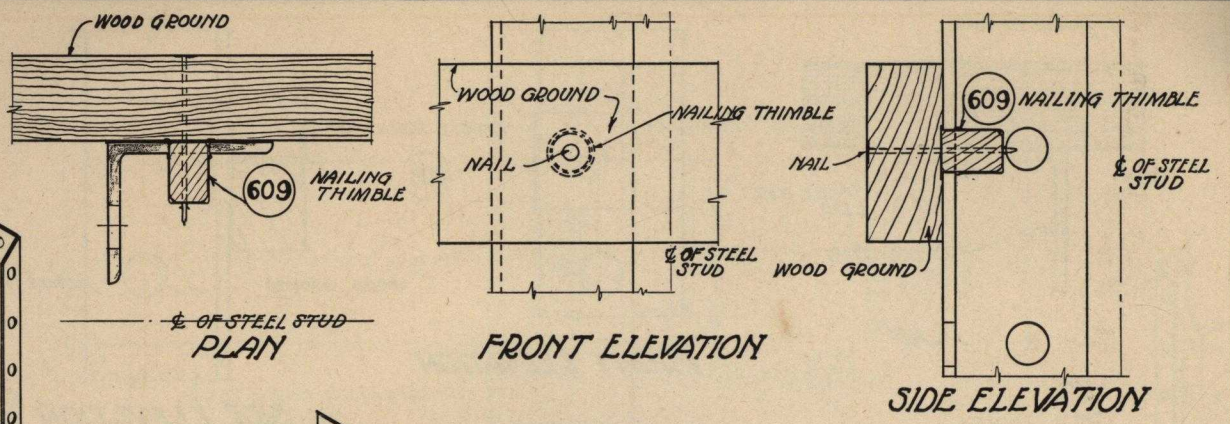


DETAILS OF SINGLE NAIL CLIP.

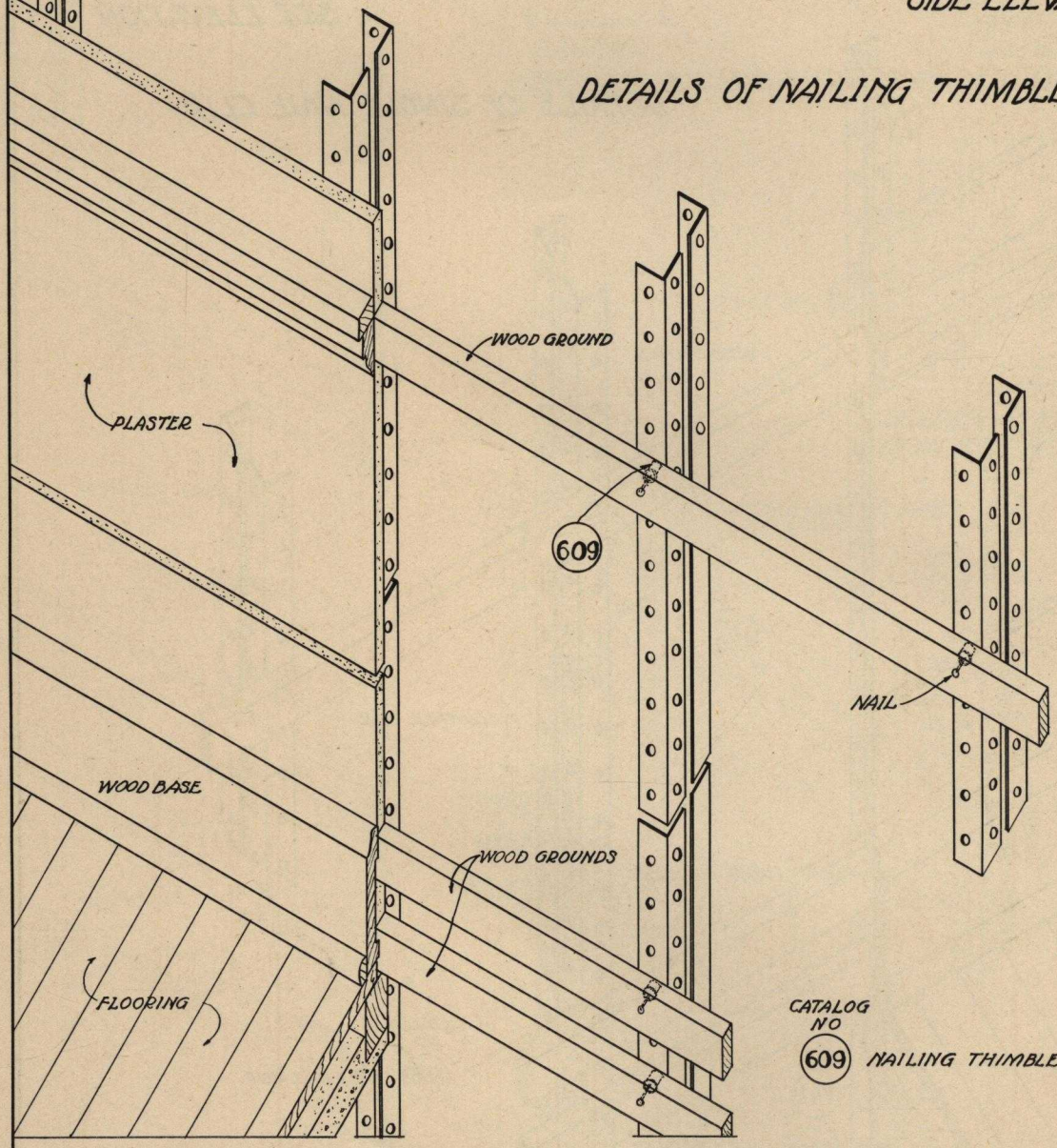


APPLICATION OF WOOD GROUNDS WITH SINGLE NAIL CLIP.

DATE	WOOD GROUNDS STEEL FRAME HOUSE CO SUBSIDIARY · OF · Mc CLINTIC · MARSHALL · CORPORATION PITTSBURGH	D-3A 0" 6" 0" 1" SCALE

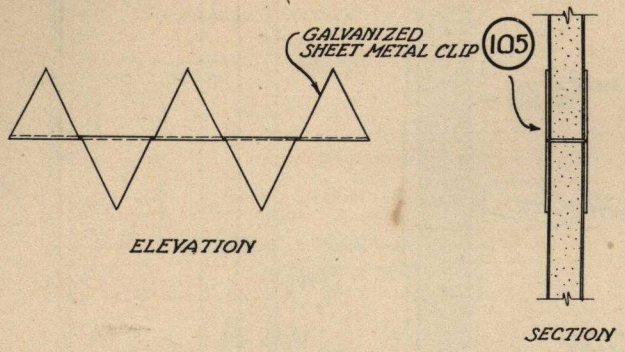


DETAILS OF NAILING THIMBLE



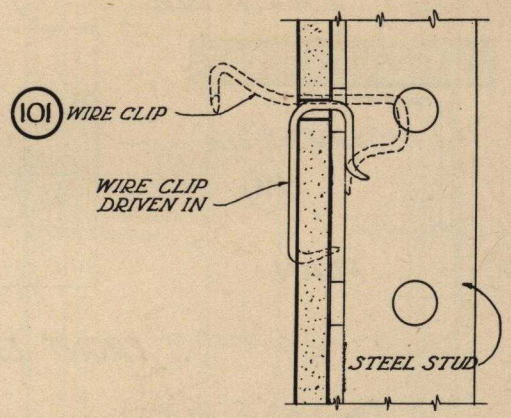
APPLICATION OF WOOD GROUNDS WITH NAILING THIMBLE

DATE	WOOD GROUNDS STEEL FRAME HOUSE CO SUBSIDIARY - OF - McCLINTIC - MARSHALL - CORPORATION PITTSBURGH	D-3 B 0" — 6" 0' — 1" SCALE



SHEET METAL CLIP

NOTE: THIS CLIP IS USED WHEN JOINTS DO NOT COME ON STUDS.

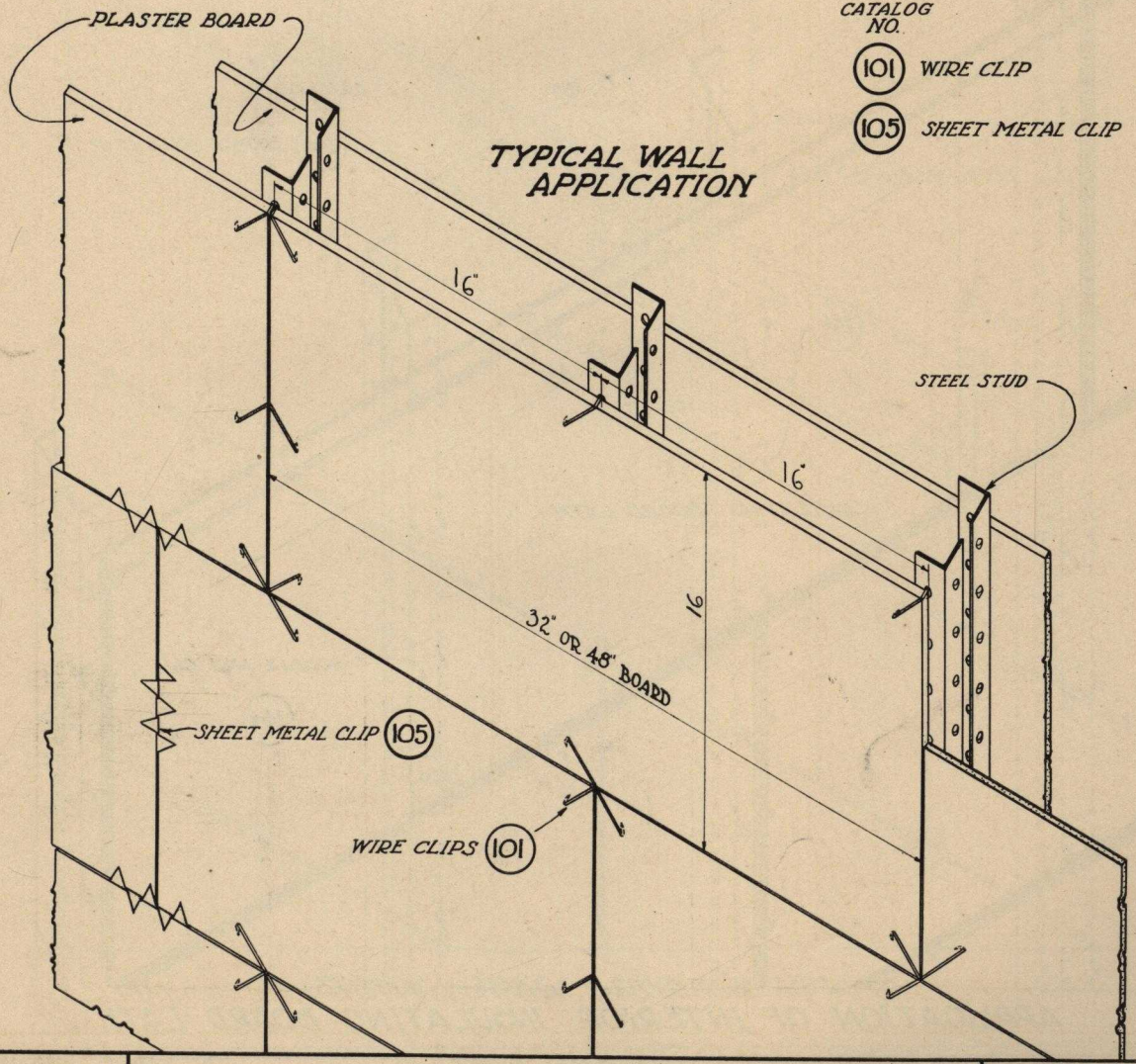


SECTION SHOWING WIRE CLIP

CATALOG NO.

101 WIRE CLIP

105 SHEET METAL CLIP



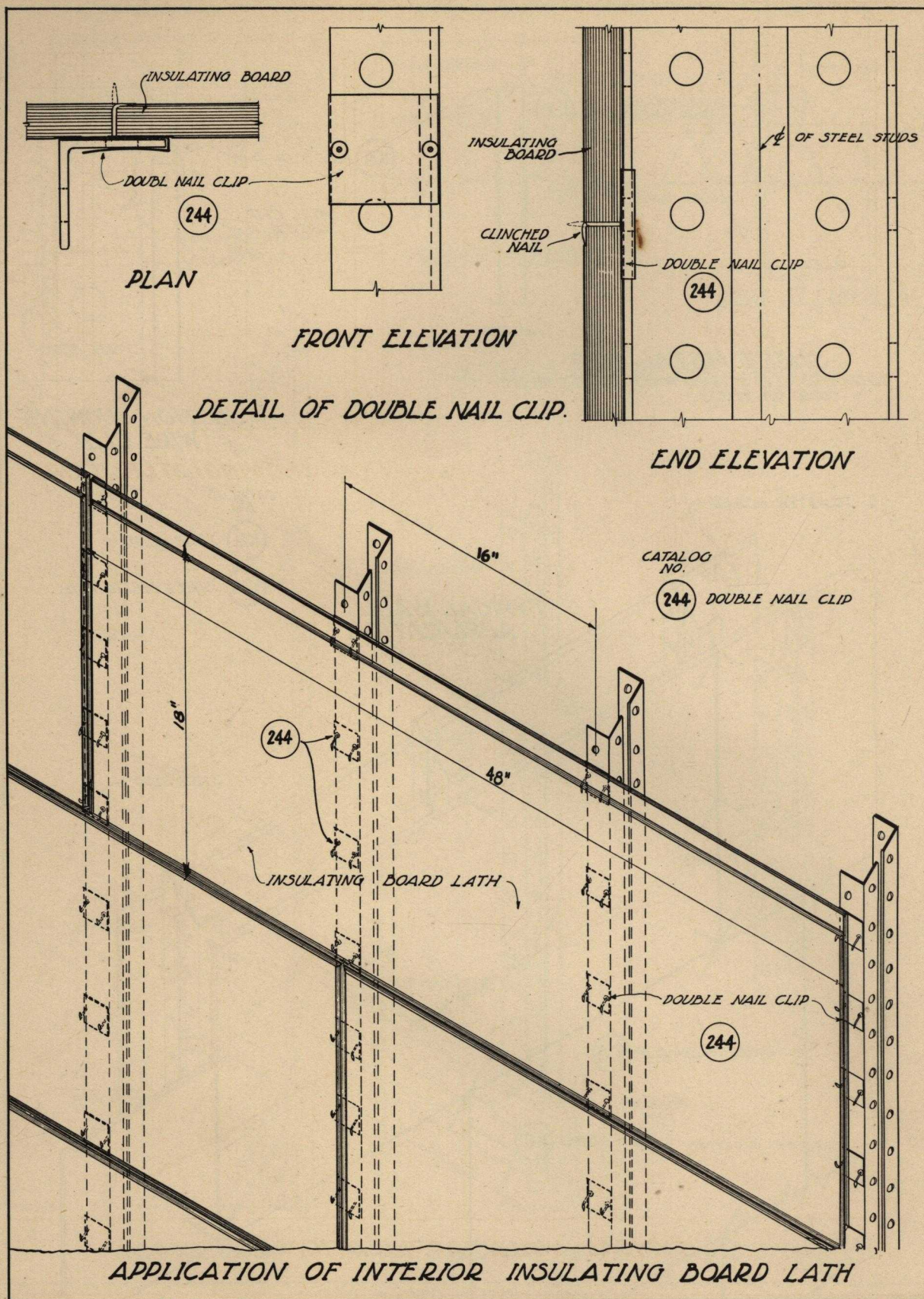
TYPICAL WALL APPLICATION

DATE

PLASTER BOARD
STEEL FRAME HOUSE CO
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION.
PITTSBURGH

D-4

0" 6"
SCALE



APPLICATION OF INTERIOR INSULATING BOARD LATH

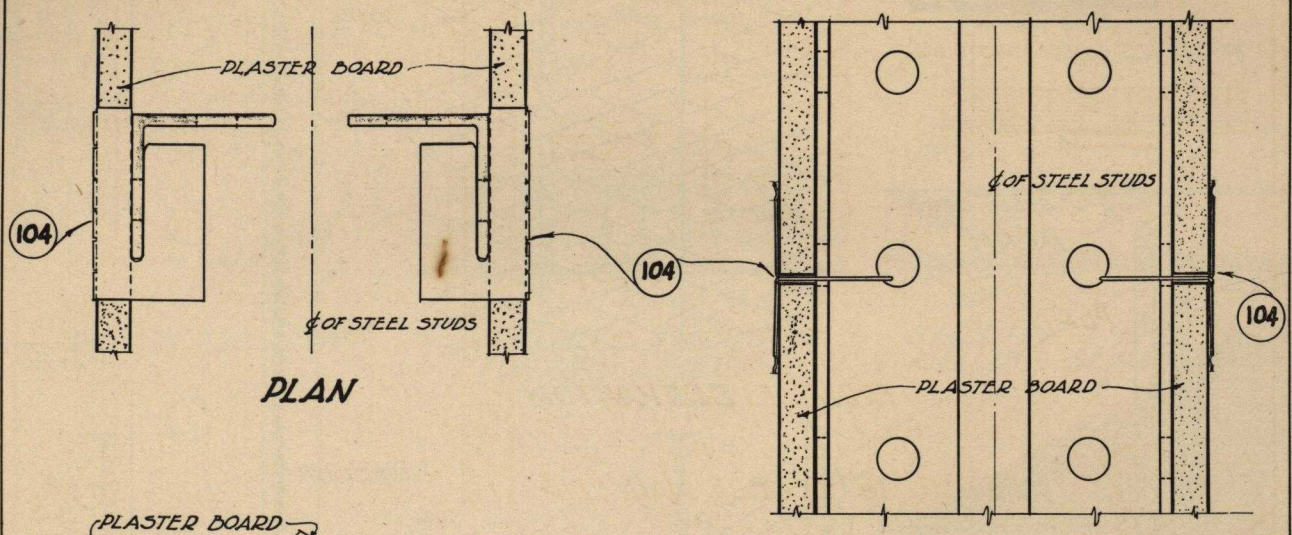
DATE.

PLASTER BASE
STEEL FRAME HOUSE CO

SUBSIDIARY · OF · Mc CLINTIC - MARSHALL · CORPORATION
PITTSBURGH

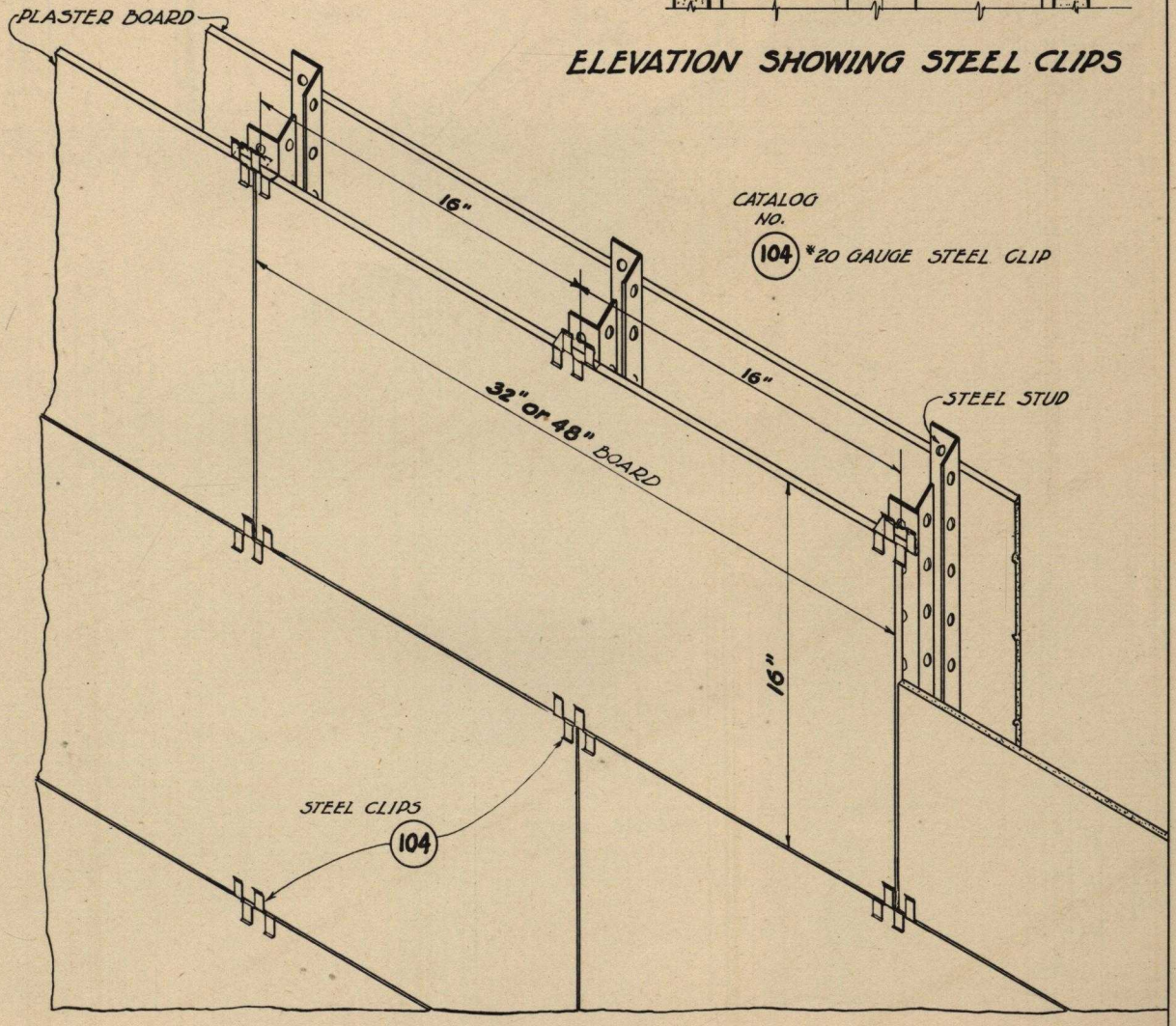
D·4A

0" 6"
0" 1"
SCALE



PLAN

ELEVATION SHOWING STEEL CLIPS



CATALOG NO.
104 *20 GAUGE STEEL CLIP

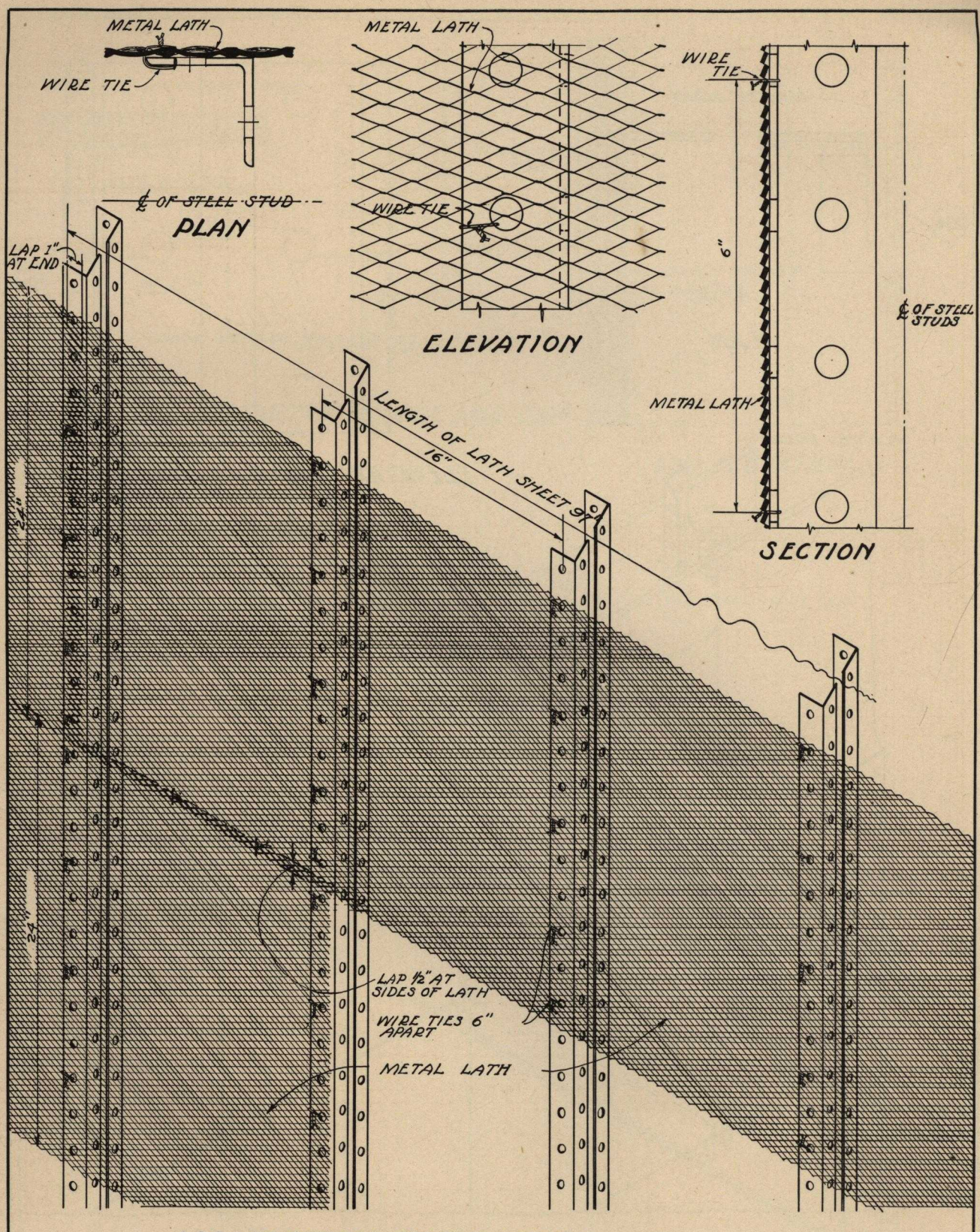
TYPICAL WALL APPLICATION

DATE.

PLASTER BOARD
STEEL FRAME HOUSE CO
SUBSIDIARY · OF · Mc CLINTIC · MARSHALL · CORPORATION
PITTSBURGH

D-4B

0" 6"
0" 1"
SCALE



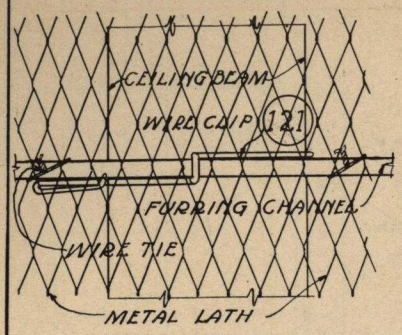
APPLICATION OF EXPANDED METAL LATH

DATE.

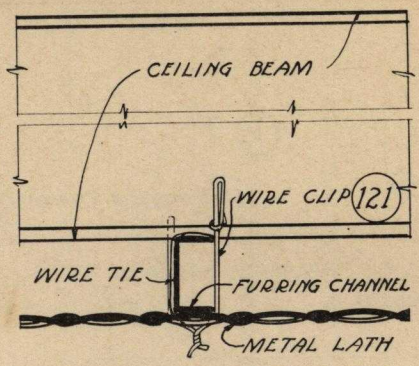
METAL LATH
STEEL FRAME HOUSE CO
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION
PITTSBURGH

D-4 C

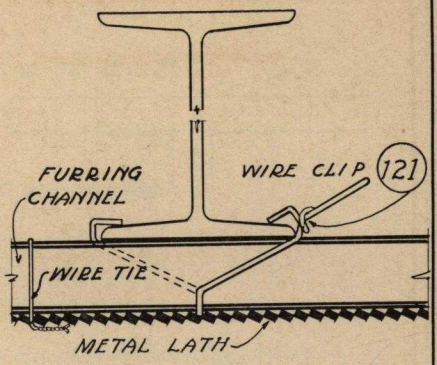
0 6"
0 1"
SCALE



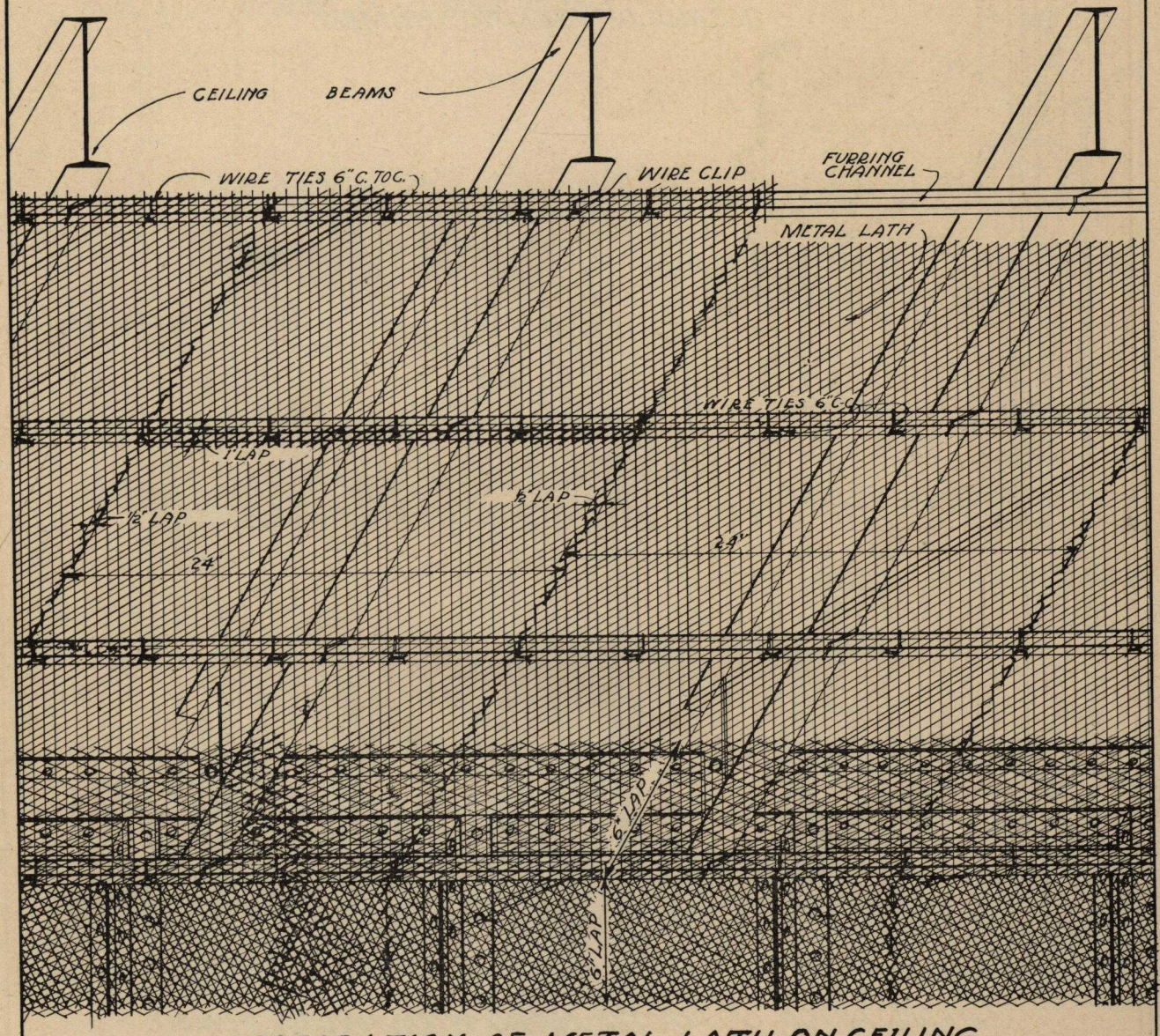
REFLECTED PLAN



SECTION THROUGH FURRING CHANNEL



SECTION THROUGH CEILING BEAM



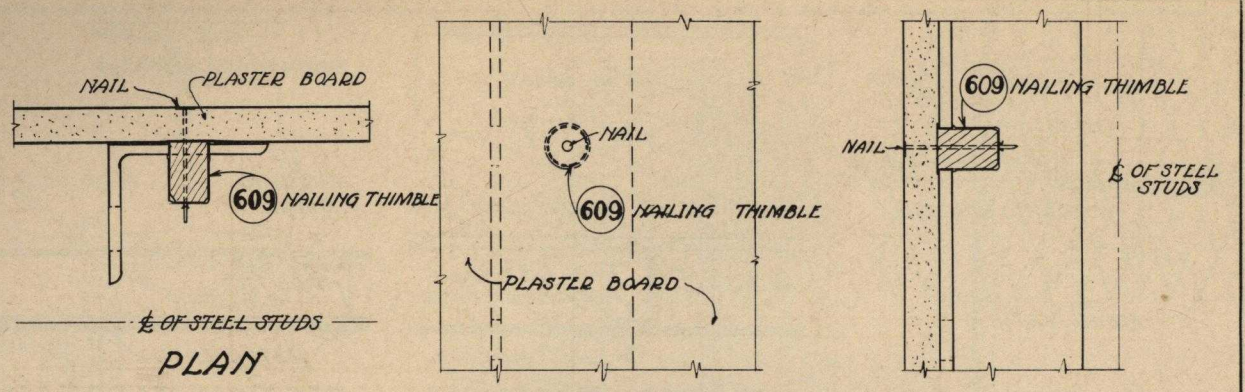
APPLICATION OF METAL LATH ON CEILING

DATE

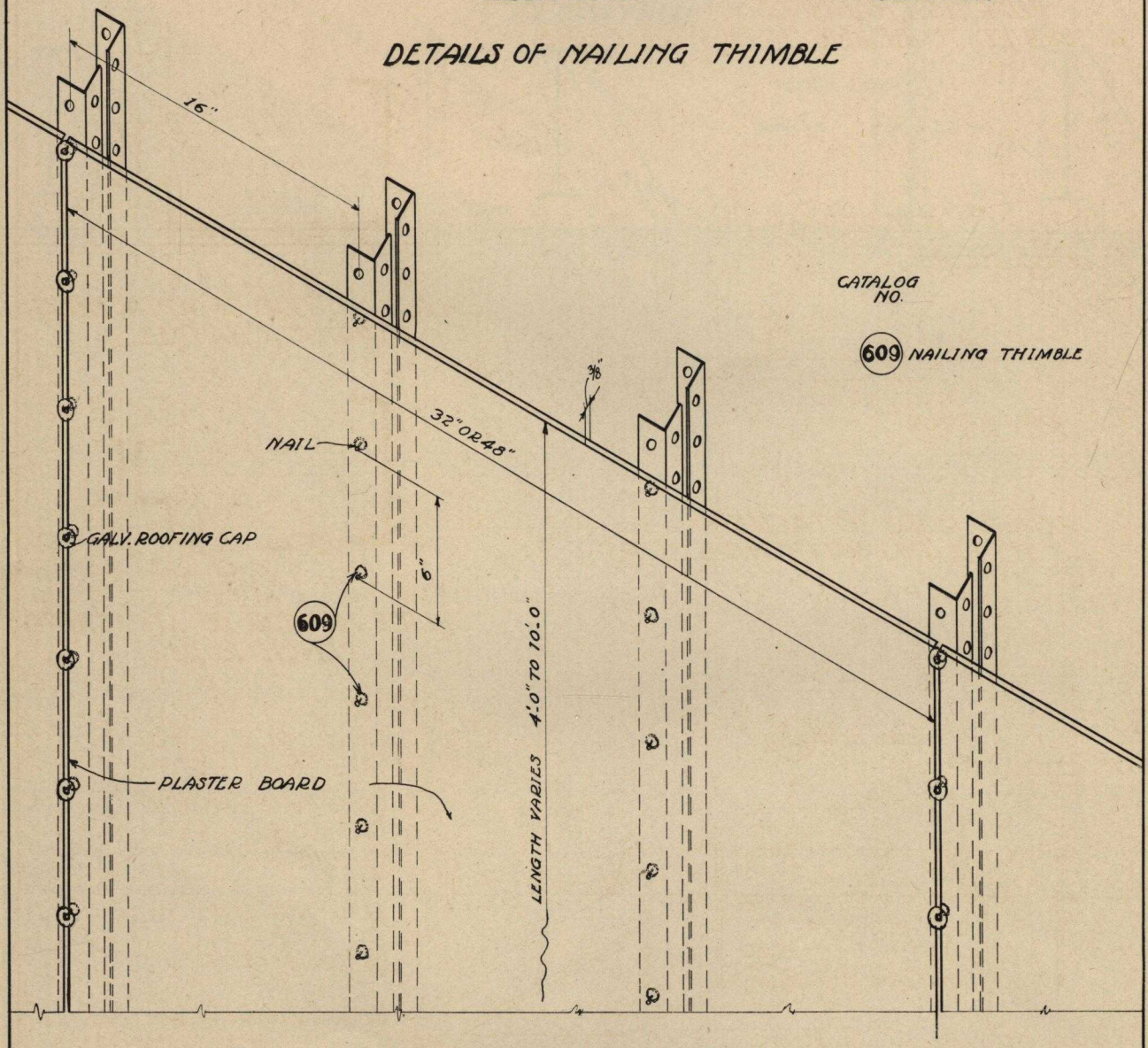
METAL LATH
STEEL FRAME HOUSE CO
SUBSIDIARY OF Mc CLINTIC - MARSHALL - CORPORATION
PITTSBURGH

D-4D

0" 6"
0" 1"
SCALE

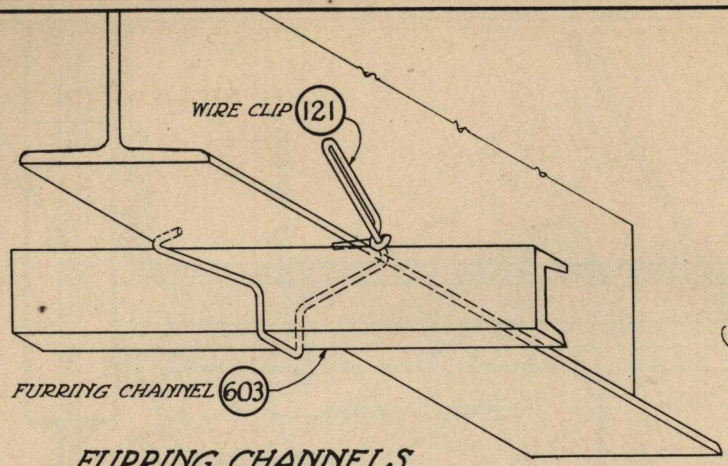


DETAILS OF NAILING THIMBLE

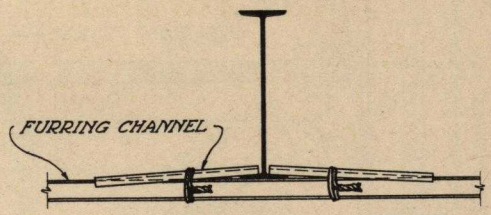


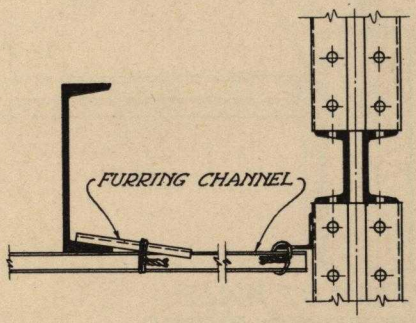
APPLICATION OF PLASTER BOARD WITH NAILING THIMBLE

DATE	PLASTER BOARD STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC MARSHALL CORPORATION PITTSBURGH	D4E 0" 6" 0" 1" SCALE

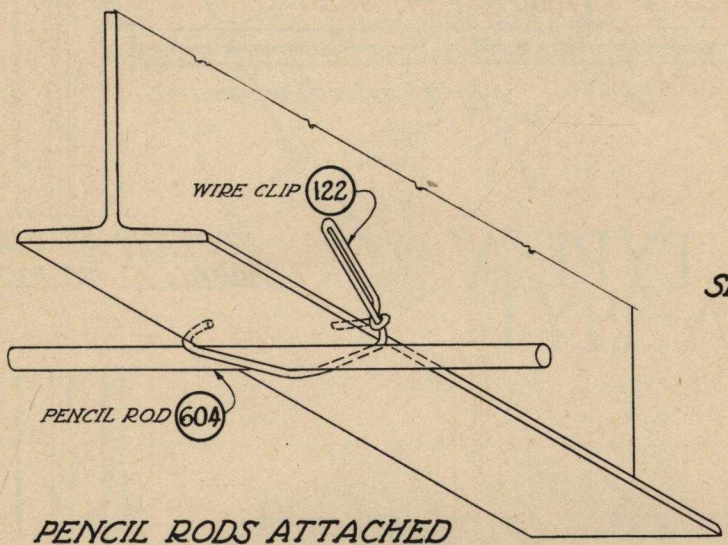


FURRING CHANNELS
ATTACHED TO BEAMS WITH WIRE CLIPS

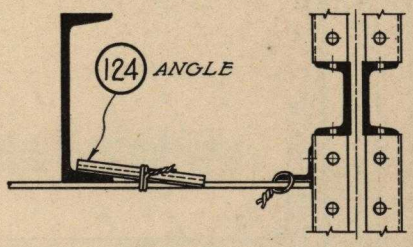




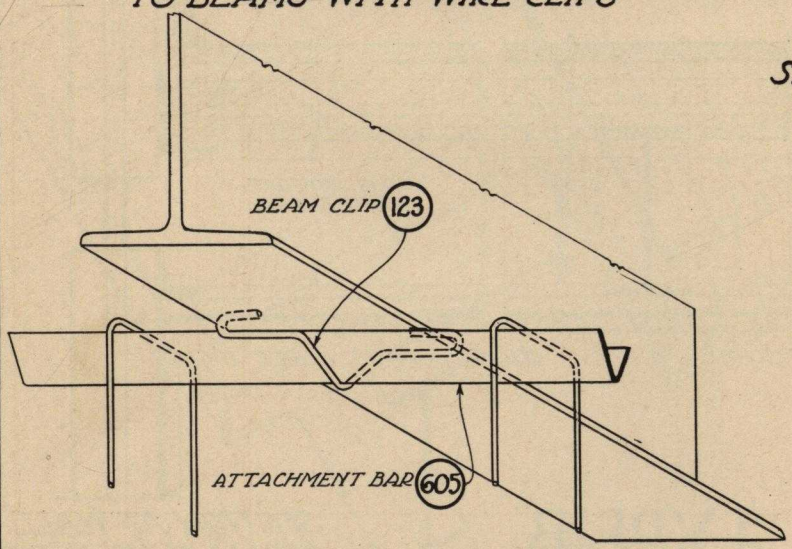
SPLICE METHOD OF ATTACHING
FURRING CHANNELS



PENCIL RODS ATTACHED
TO BEAMS WITH WIRE CLIPS



SPLICE METHOD OF ATTACHING
PENCIL RODS



ATTACHMENT BAR FASTENED TO BEAMS

CATALOG NO

121 WIRE

603 FURRING CHANNEL

122 WIRE CLIP

604 PENCIL ROD

123 BEAM CLIP

605 ATTACHMENT BAR

124 1/2" X 1/2" ANGLE

DATE

FURRING

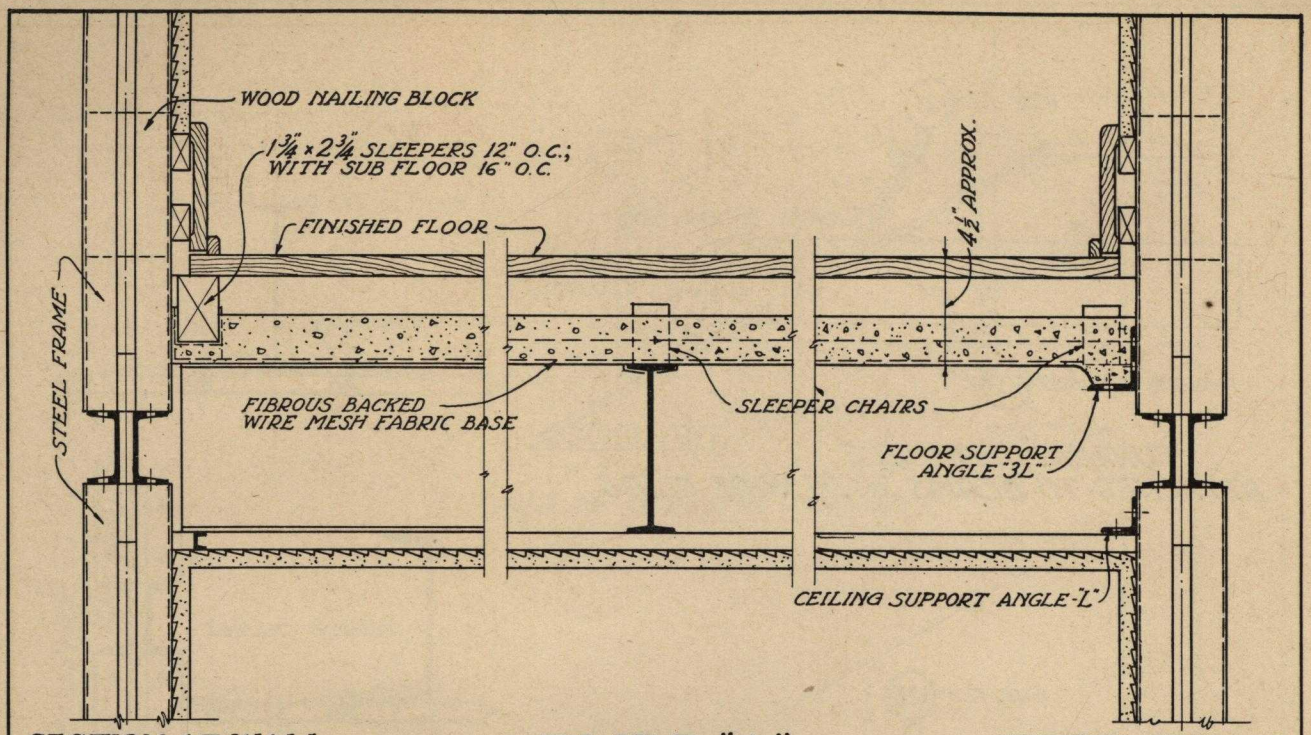
STEEL FRAME HOUSE CO

SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION

PITTSBURGH

D-5

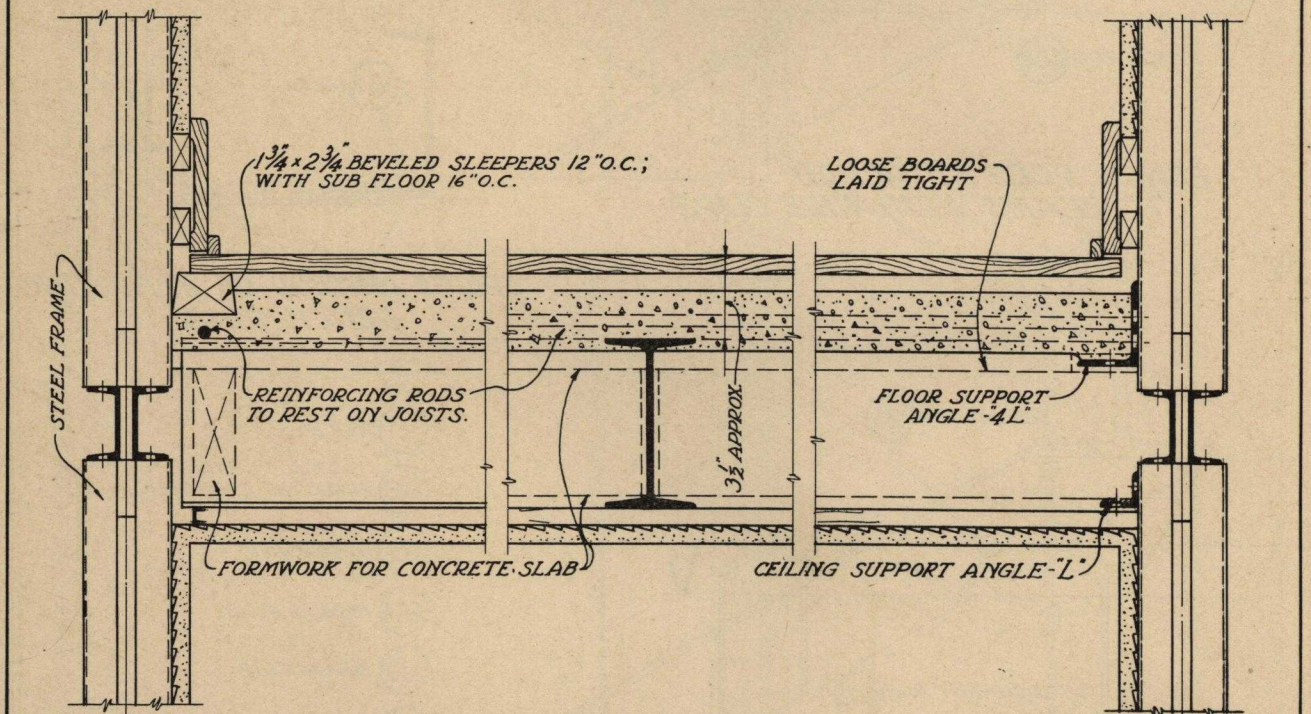
0" 6"
0" 1"
SCALE


WOOD NAILING BLOCK
1¾" x 2¾" SLEEPERS 12" O.C.; WITH SUB FLOOR 16" O.C.
FINISHED FLOOR
STEEL FRAME
4½" APPROX.
FIBROUS BACKED WIRE MESH FABRIC BASE
SLEEPER CHAIRS
FLOOR SUPPORT ANGLE "3L"
CEILING SUPPORT ANGLE "L"

SECTION AT WALL SUPPORTING JOISTS

TYPE "A"

SECTION AT WALL PARALLEL TO JOISTS

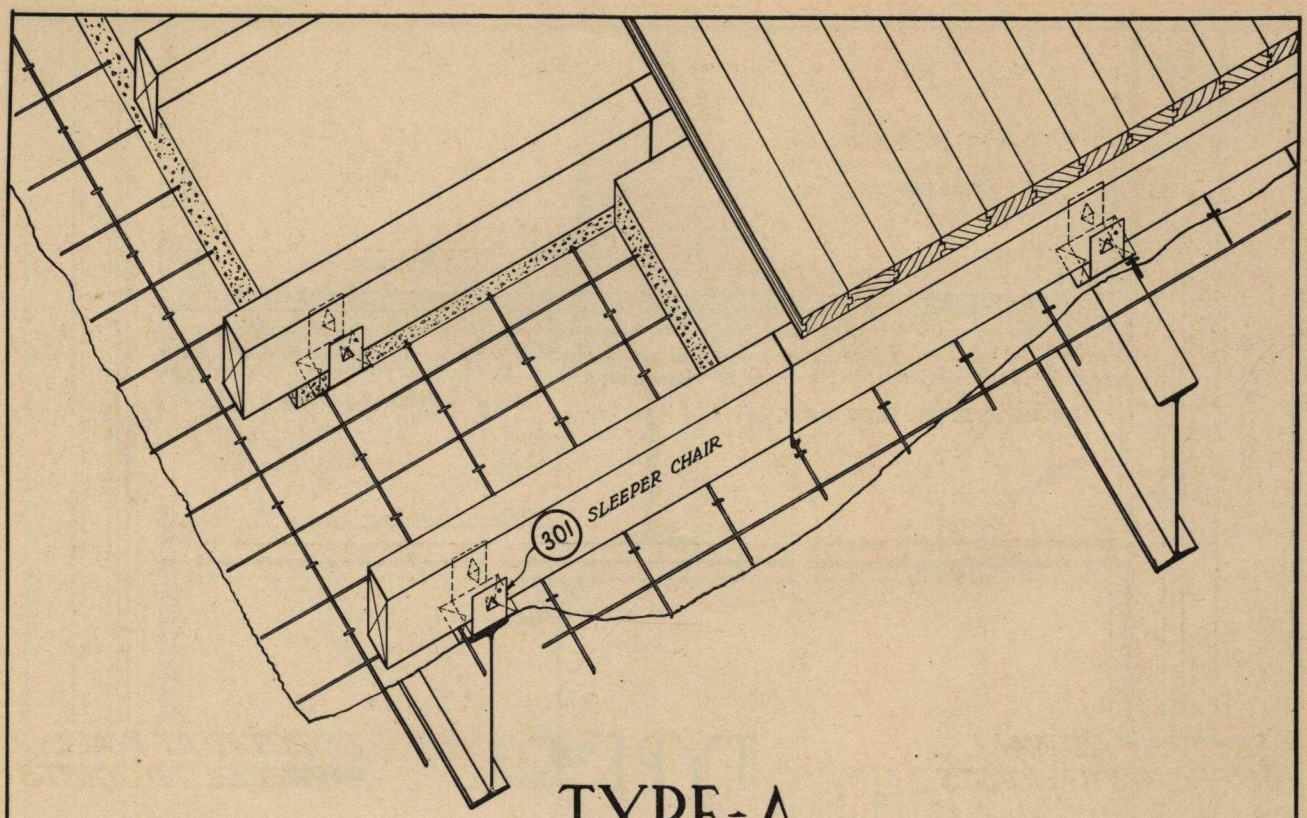

1¾" x 2¾" BEVELED SLEEPERS 12" O.C.; WITH SUB FLOOR 16" O.C.
LOOSE BOARDS LAID TIGHT
STEEL FRAME
REINFORCING RODS TO REST ON JOISTS.
3½" APPROX.
FLOOR SUPPORT ANGLE "4L"
FORMWORK FOR CONCRETE SLAB
CEILING SUPPORT ANGLE "L"

SECTION AT WALL SUPPORTING JOISTS

TYPE "B"

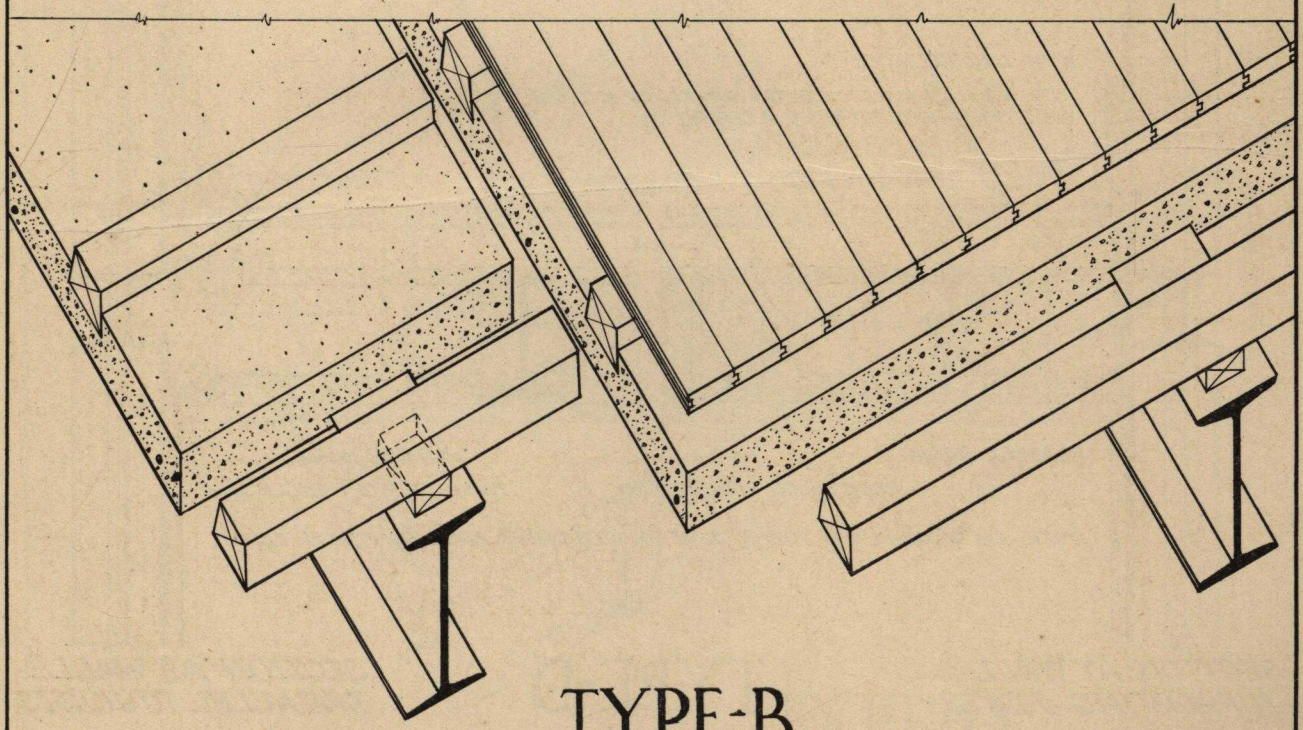
SECTION AT WALL PARALLEL TO JOISTS

DATE	FLOOR CONSTRUCTION STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-6 0" 6" SCALE



TYPE-A

301 SLEEPER CHAIR



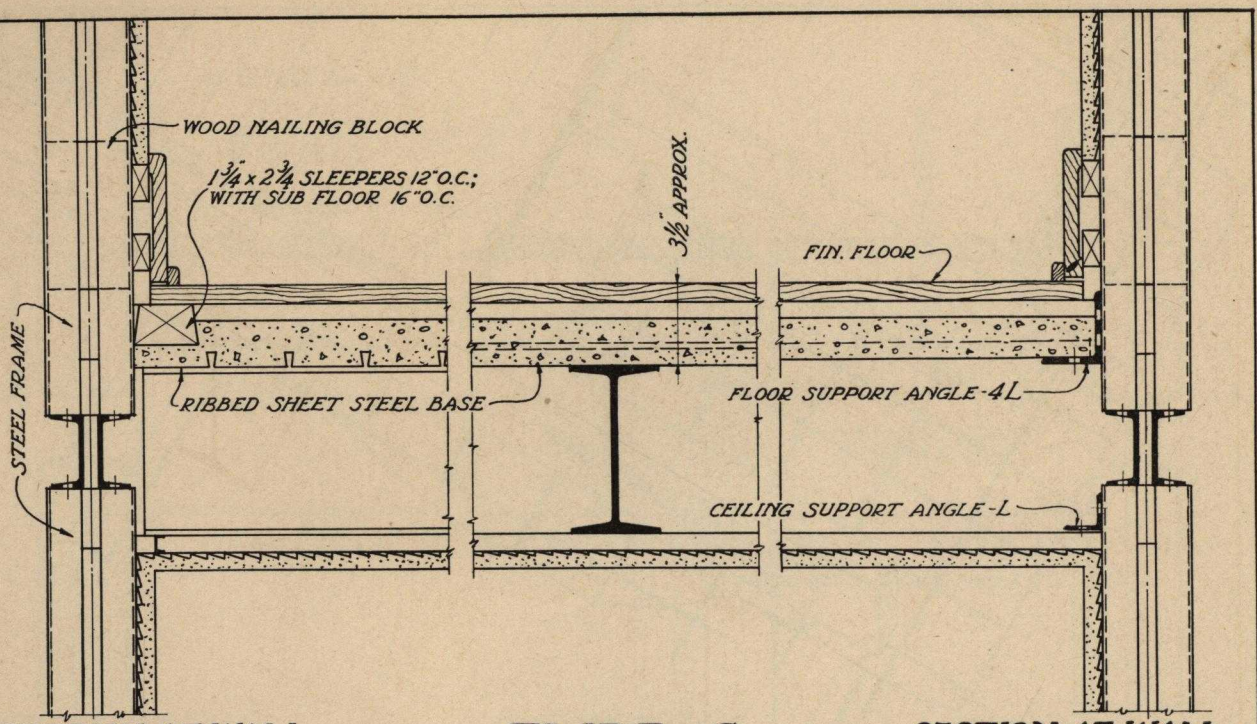
TYPE-B

DATE

FLOOR CONSTRUCTION
STEEL FRAME HOUSE CO
SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION
PITTSBURGH

D-6A

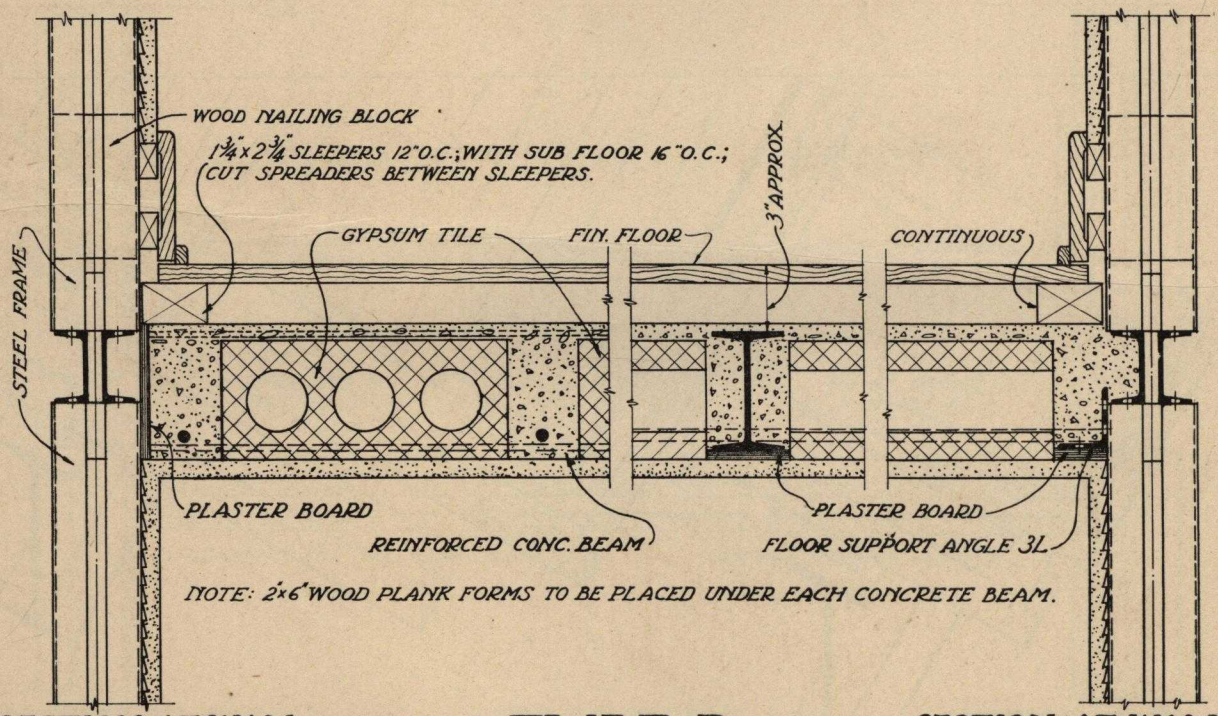
0 — 6"
SCALE


WOOD NAILING BLOCK
1¾" x 2¾" SLEEPERS 12" O.C.; WITH SUB FLOOR 16" O.C.
3½" APPROX.
FIN. FLOOR
STEEL FRAME
RIBBED SHEET STEEL BASE
FLOOR SUPPORT ANGLE - 4L
CEILING SUPPORT ANGLE - L

SECTION AT WALL SUPPORTING JOISTS

TYPE-C

SECTION AT WALL PARALLEL TO JOISTS

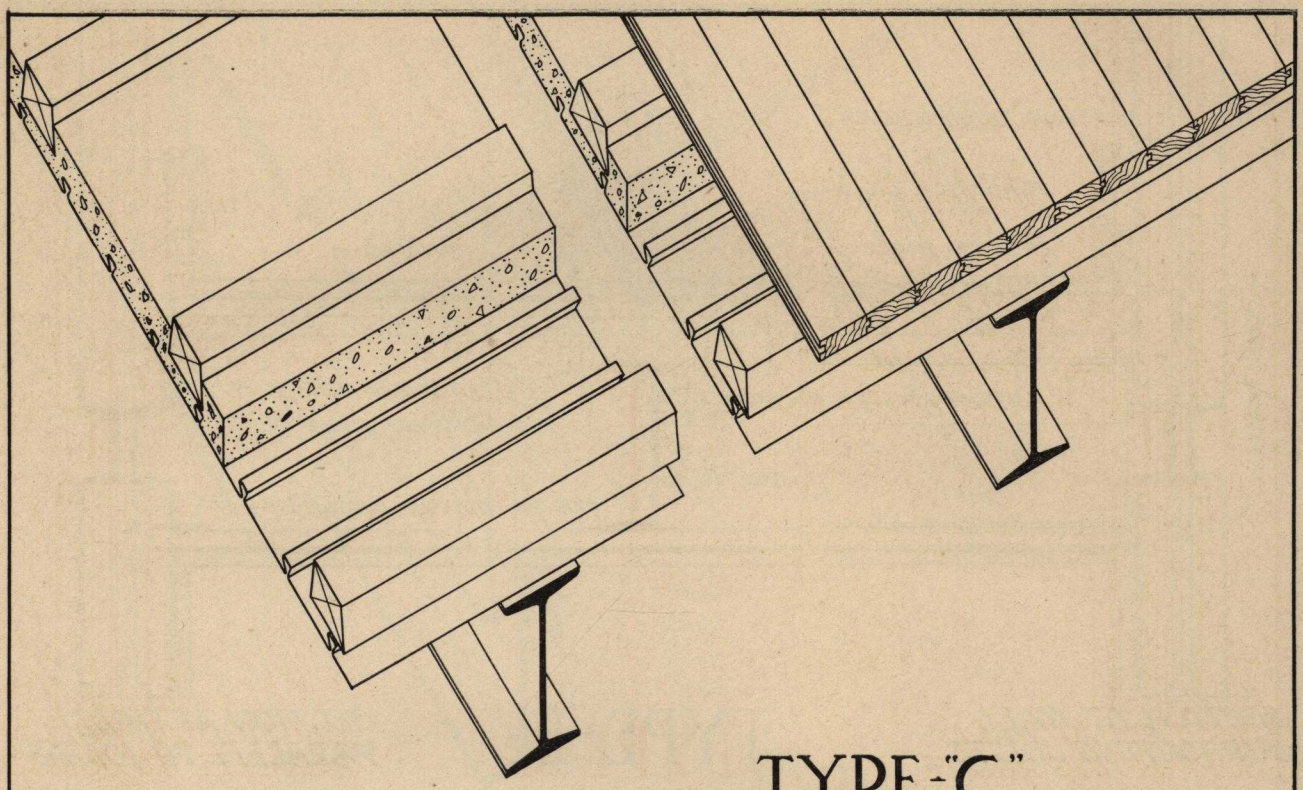

WOOD NAILING BLOCK
1¾" x 2¾" SLEEPERS 12" O.C.; WITH SUB FLOOR 16" O.C.; (CUT SPREADERS BETWEEN SLEEPERS.
3" APPROX.
GYPSUM TILE
FIN. FLOOR
CONTINUOUS
STEEL FRAME
PLASTER BOARD
REINFORCED CONC. BEAM
PLASTER BOARD
FLOOR SUPPORT ANGLE 3L
NOTE: 2"x6" WOOD PLANK FORMS TO BE PLACED UNDER EACH CONCRETE BEAM.

SECTION AT WALL SUPPORTING JOISTS

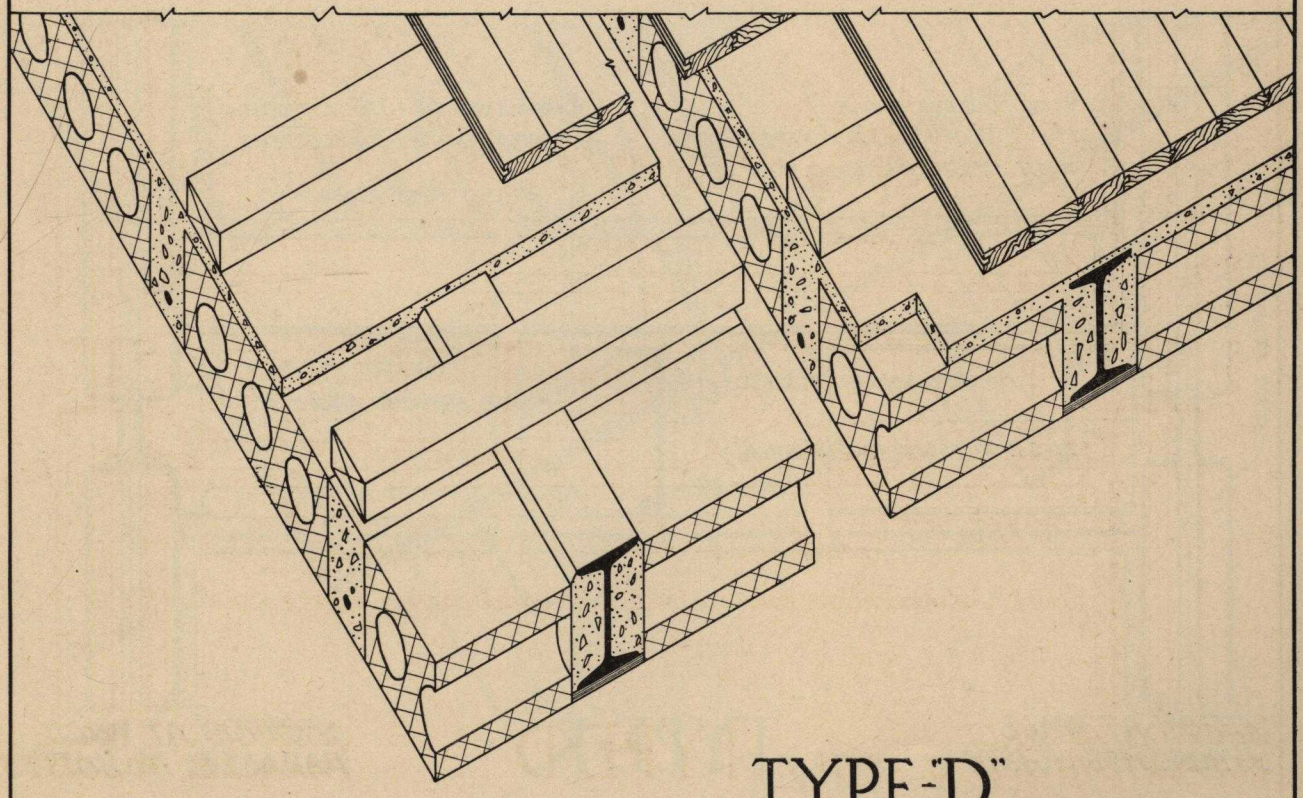
TYPE-D

SECTION AT WALL PARALLEL TO JOISTS

DATE	FLOOR CONSTRUCTION STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-7 0' — 6' SCALE

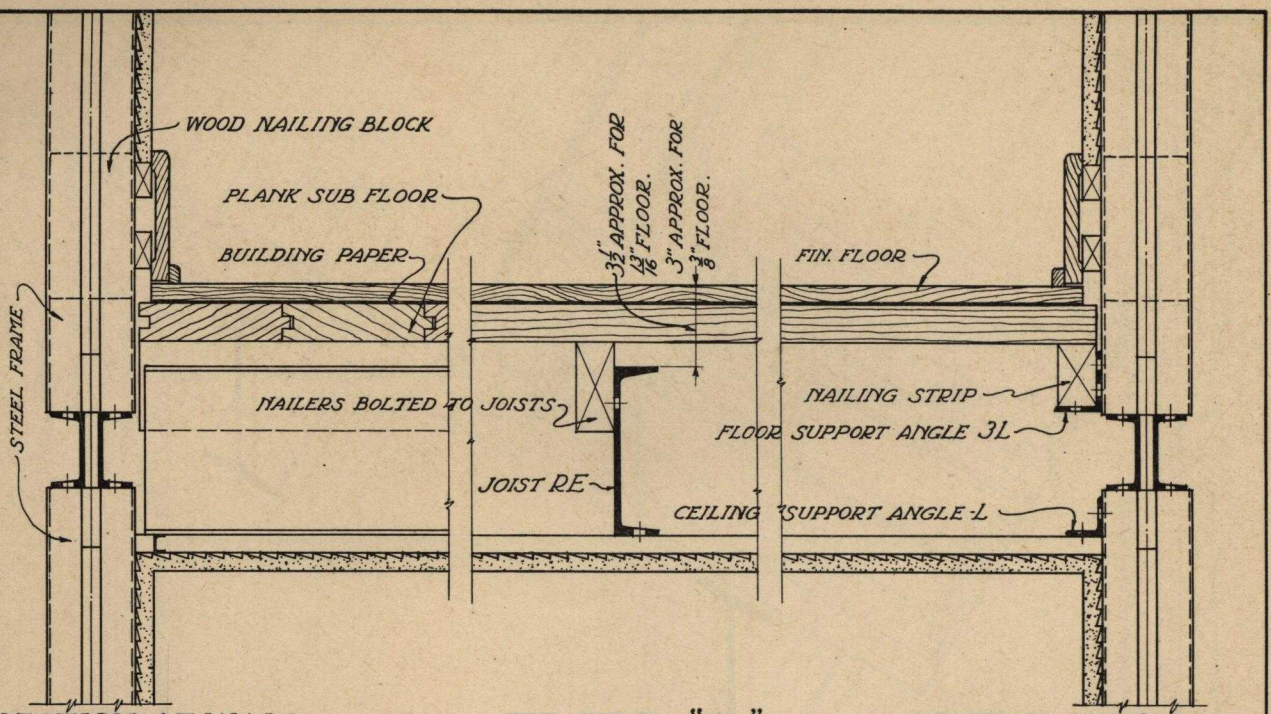


TYPE-"C"



TYPE-"D"

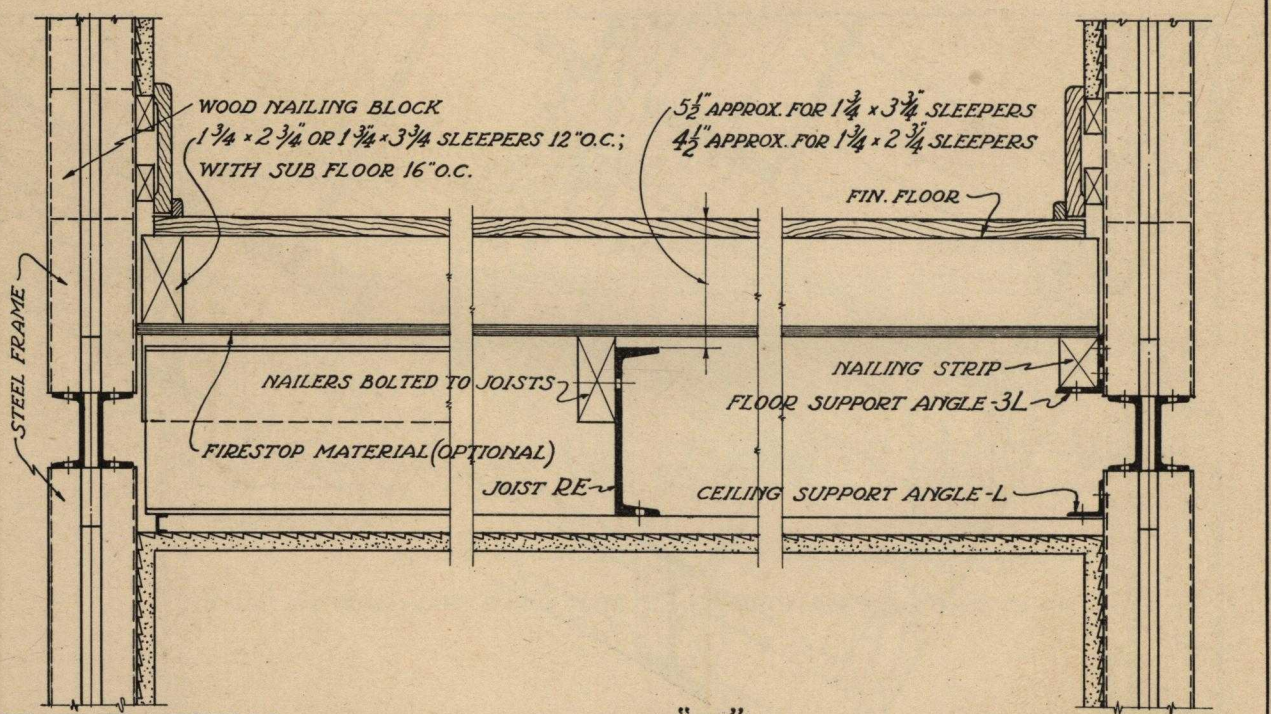
DATE	FLOOR CONSTRUCTION STEEL FRAME HOUSE CO SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION PITTSBURGH	D-7A 0 — 6" SCALE



SECTION AT WALL SUPPORTING JOISTS

TYPE-"E"

SECTION AT WALL PARALLEL TO JOISTS

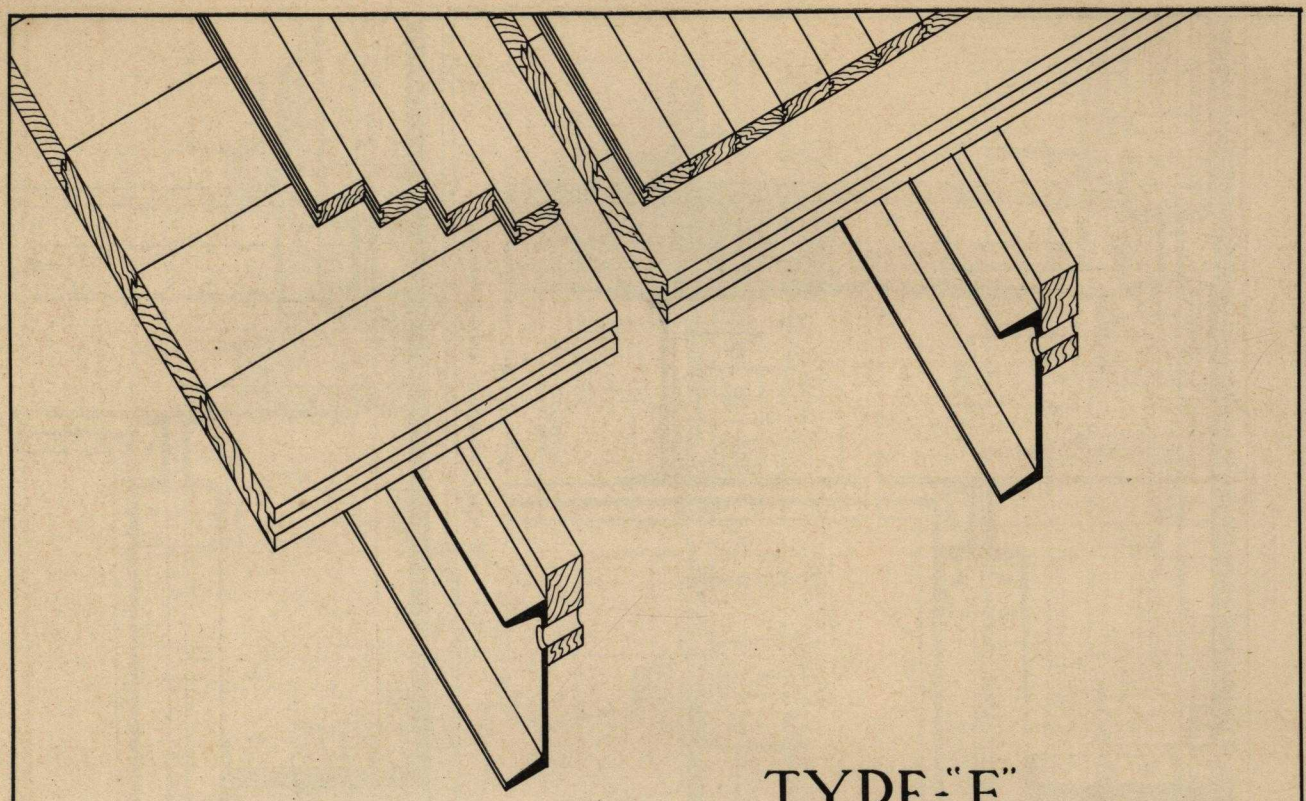

WOOD NAILING BLOCK
1¾ x 2¾" OR 1¾ x 3¾ SLEEPERS 12"O.C.; WITH SUB FLOOR 16"O.C.
5½" APPROX. FOR 1¾ x 3¾" SLEEPERS
4½" APPROX. FOR 1¾ x 2¾" SLEEPERS
FIN. FLOOR
STEEL FRAME
NAILERS BOLTED TO JOISTS
NAILING STRIP
FLOOR SUPPORT ANGLE-3L
FIRESTOP MATERIAL (OPTIONAL)
JOIST RE
CEILING SUPPORT ANGLE-L

SECTION AT WALL SUPPORTING JOISTS

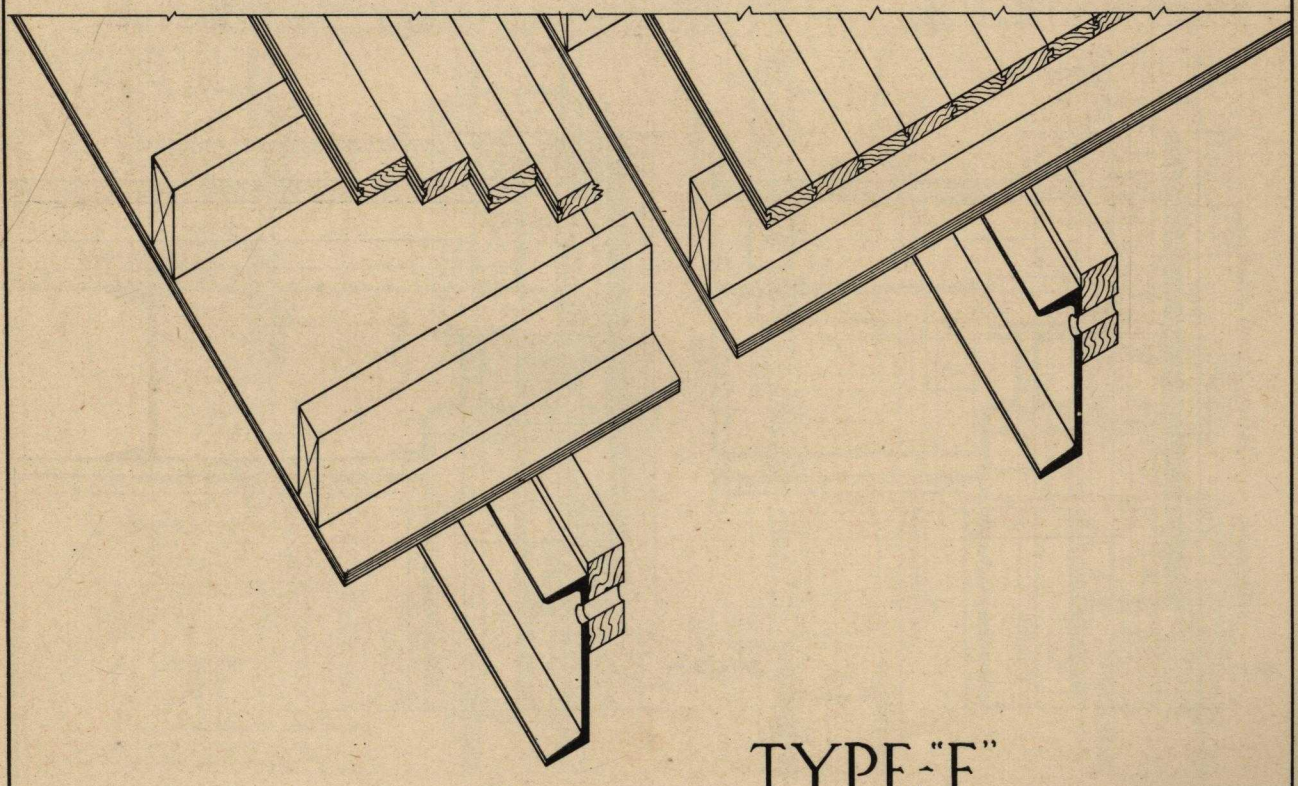
TYPE-"F"

SECTION AT WALL PARALLEL TO JOISTS

DATE	FLOOR CONSTRUCTION STEEL FRAME HOUSE CO SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION PITTSBURGH	D-8 0" — 6" SCALE

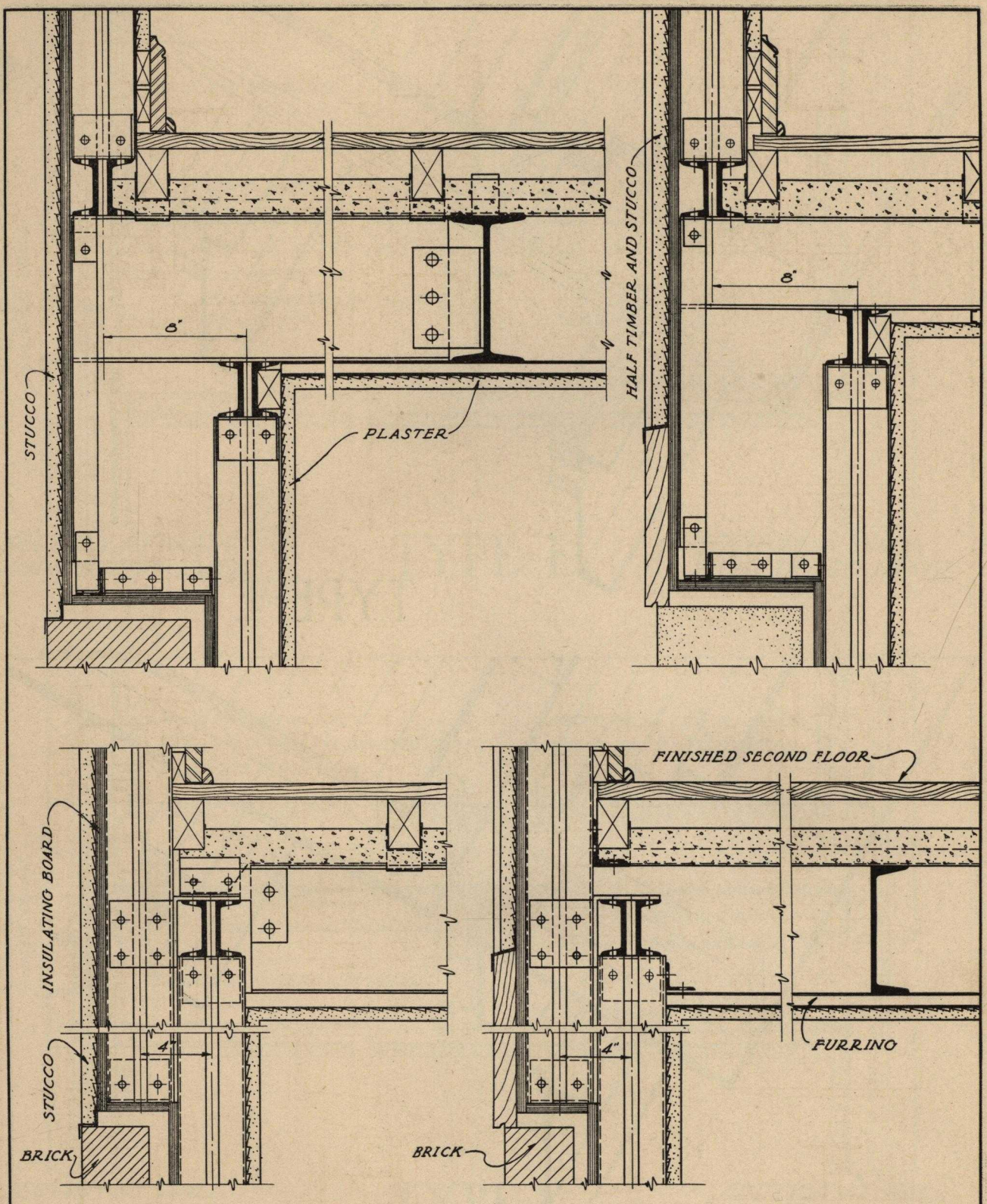


TYPE-"E"

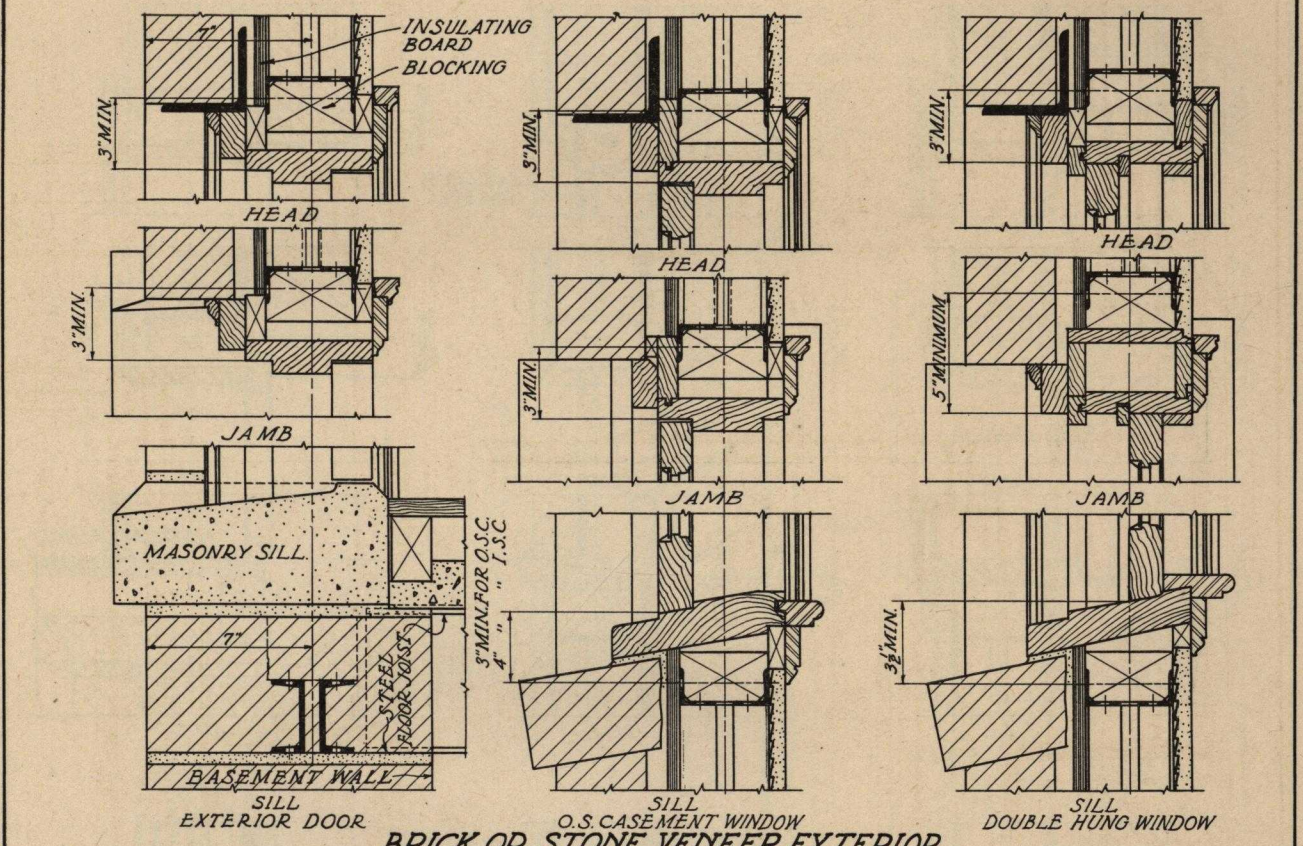


TYPE-"F"

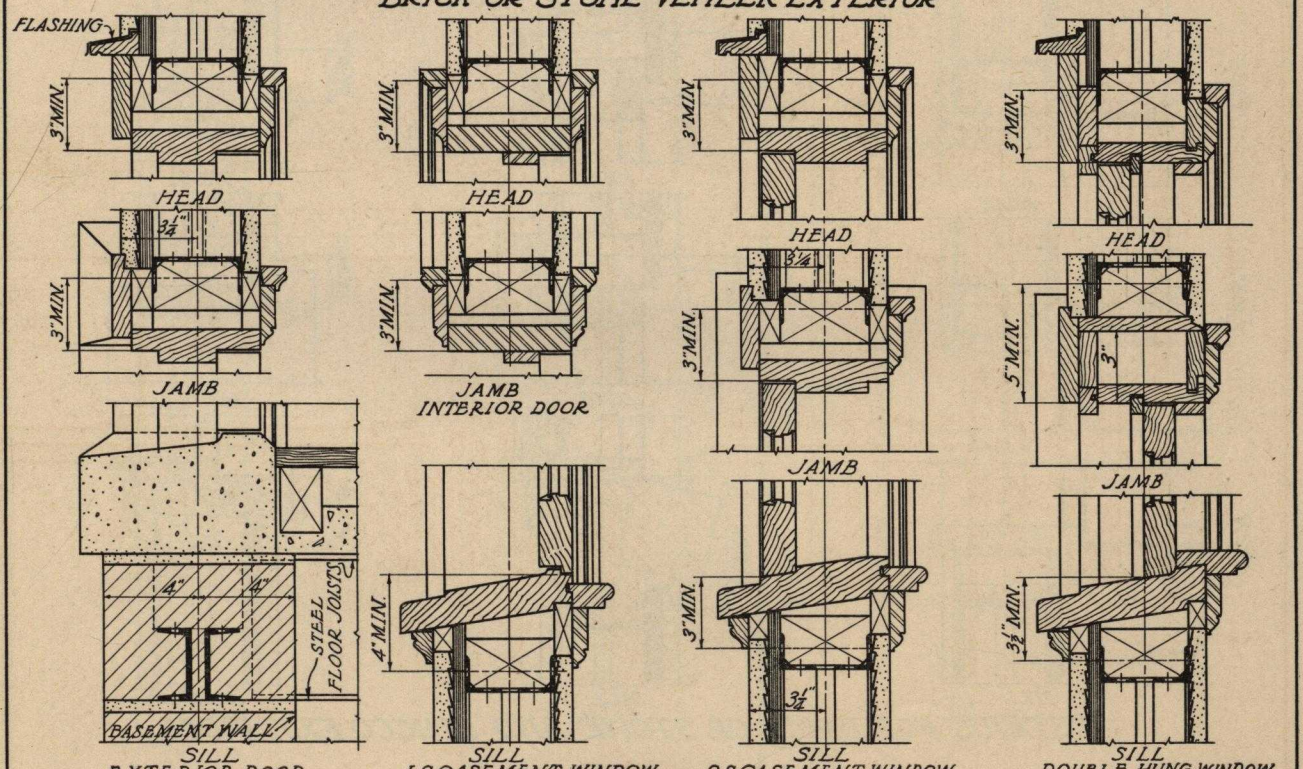
DATE	FLOOR CONSTRUCTION STEEL FRAME HOUSE CO SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION PITTSBURGH	D-8A 0 — 6" SCALE



DATE	WALL SECTIONS STEEL FRAME HOUSE CO. SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-9 0" — 6" SCALE



BRICK OR STONE VENEER EXTERIOR



STUCCO EXTERIOR

NOTE:-MINIMUM CLEARANCE DIMENSIONS ARE GIVEN TO GAGE LINES OF STEEL FRAME. KALAMEIN DETAILS SIMILAR

DATE

WOOD DOORS - WOOD WINDOWS
STEEL FRAME HOUSE CO

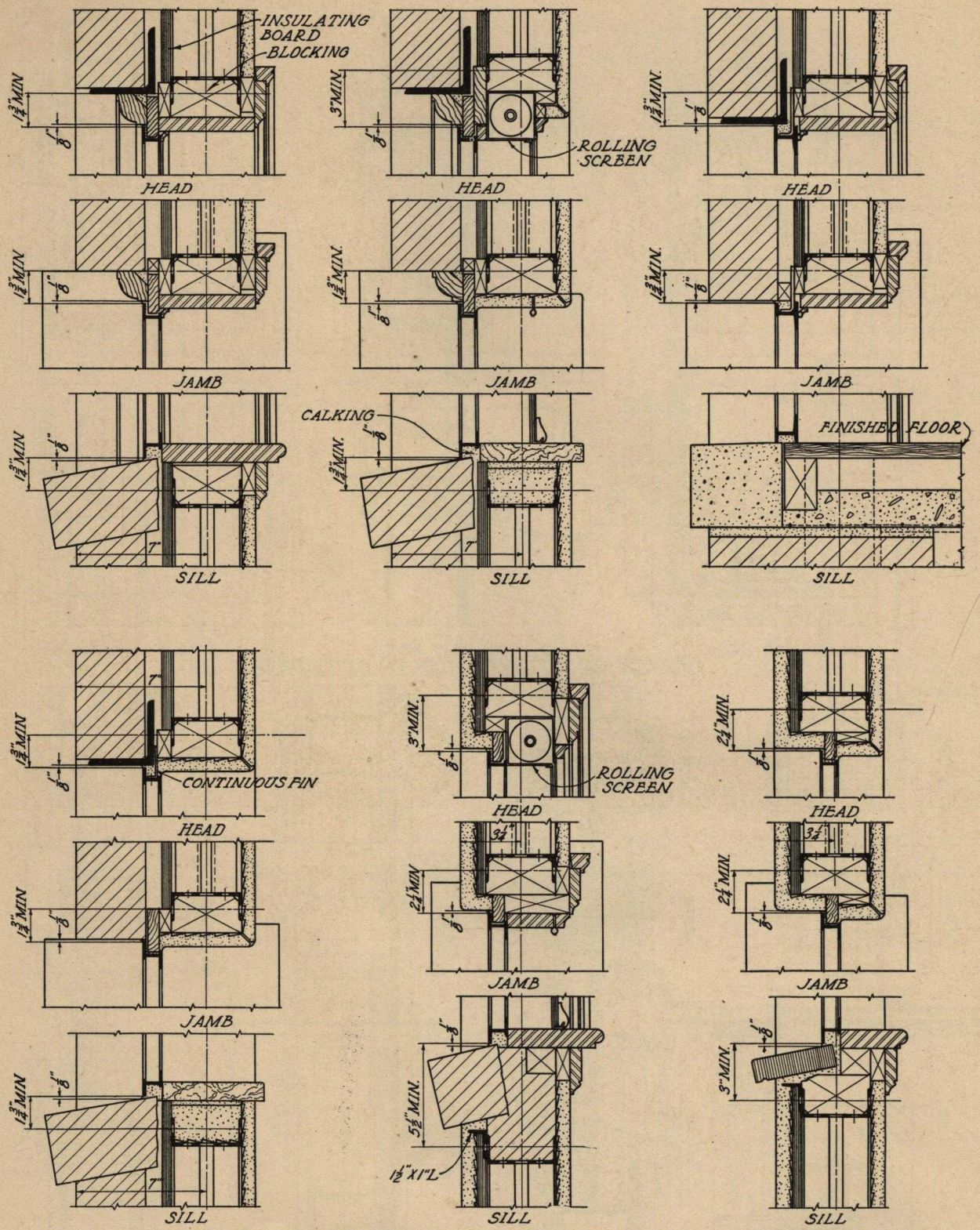
SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION

PITTSBURGH

D-10

0" 6"

SCALE



DETAILS FOR BRICK OR STONE AND STUCCO EXTERIORS

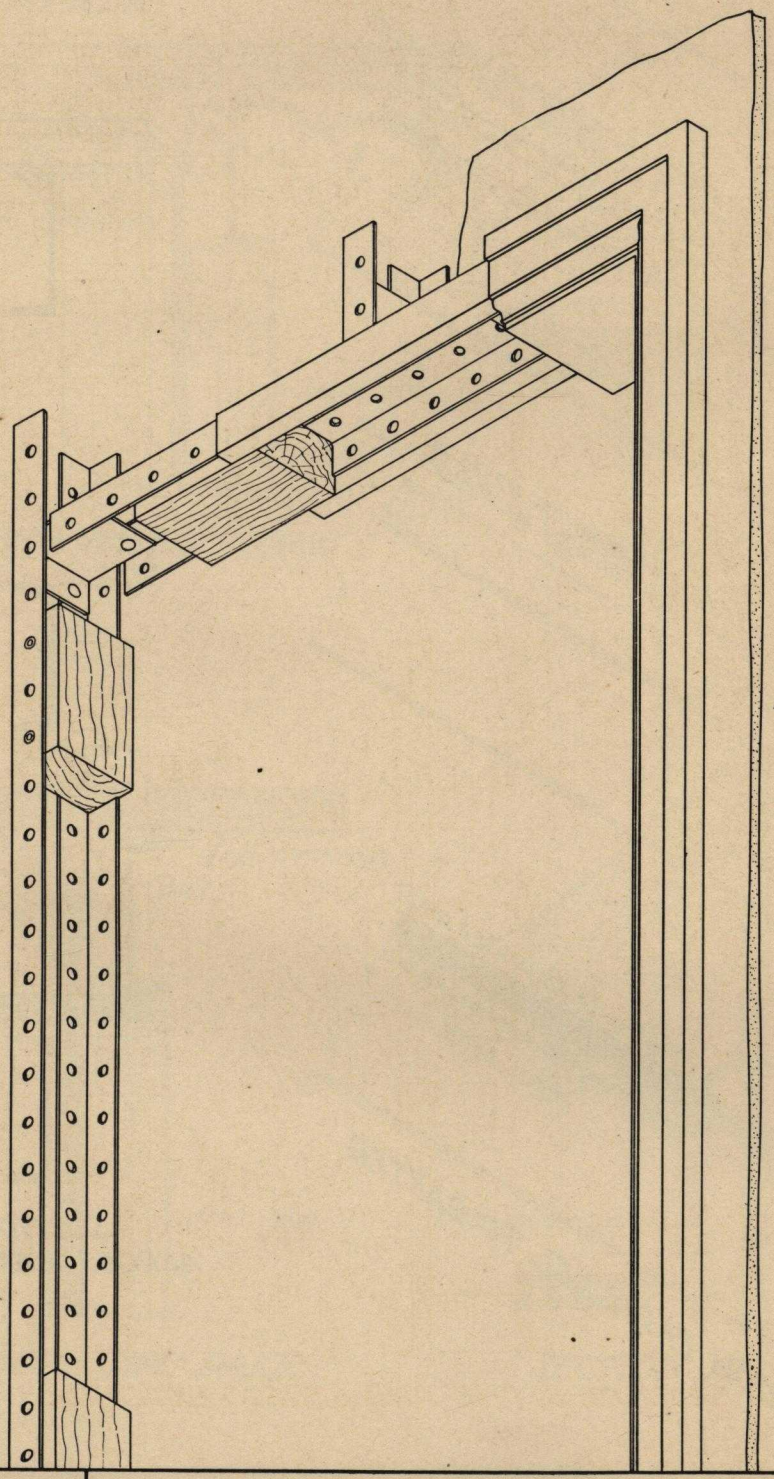
NOTE:-MINIMUM CLEARANCE DIMENSIONS ARE GIVEN TO CAGE LINES OF STEEL FRAME

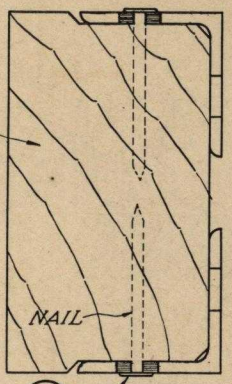
DATE

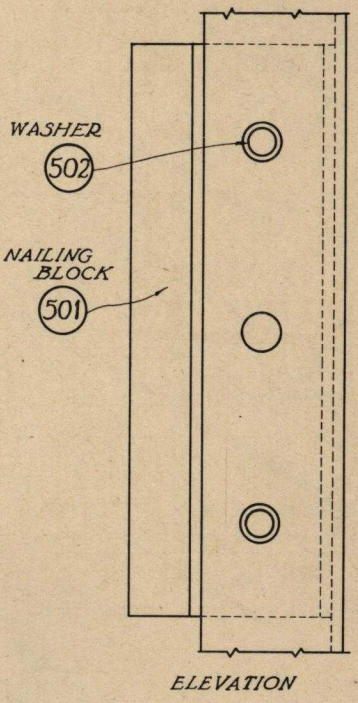
STEEL CASEMENTS
STEEL FRAME HOUSE CO
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION
PITTSBURGH

D-11

0" 6"
SCALE







CATALOG NO.

501 NAILING BLOCK

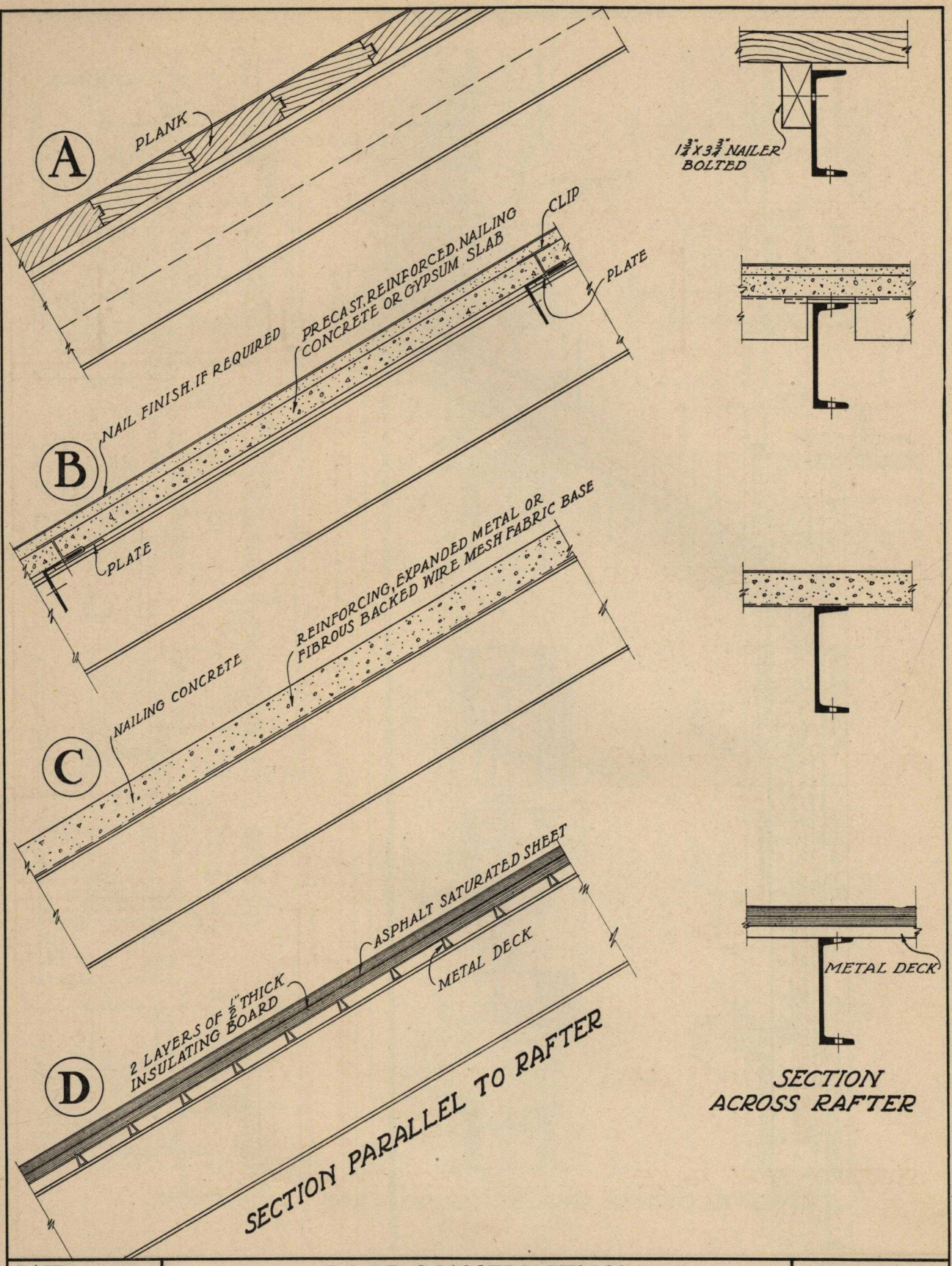
502 WASHER

DATE

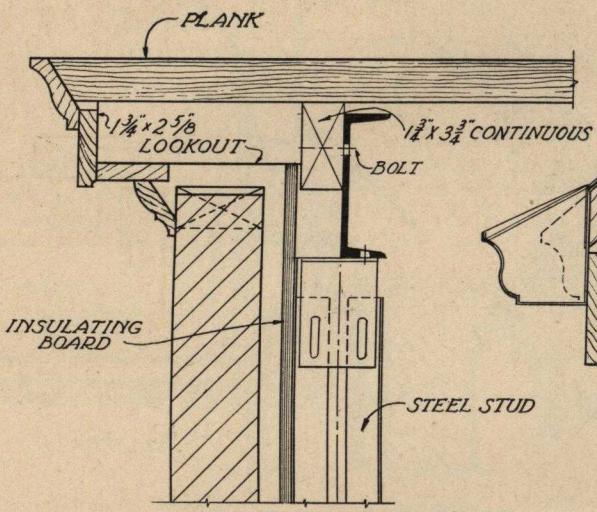
NAILING BLOCK
STEEL FRAME HOUSE CO
SUBSIDIARY OF McCLINTIC - MARSHALL CORPORATION
PITTSBURGH

D-11A

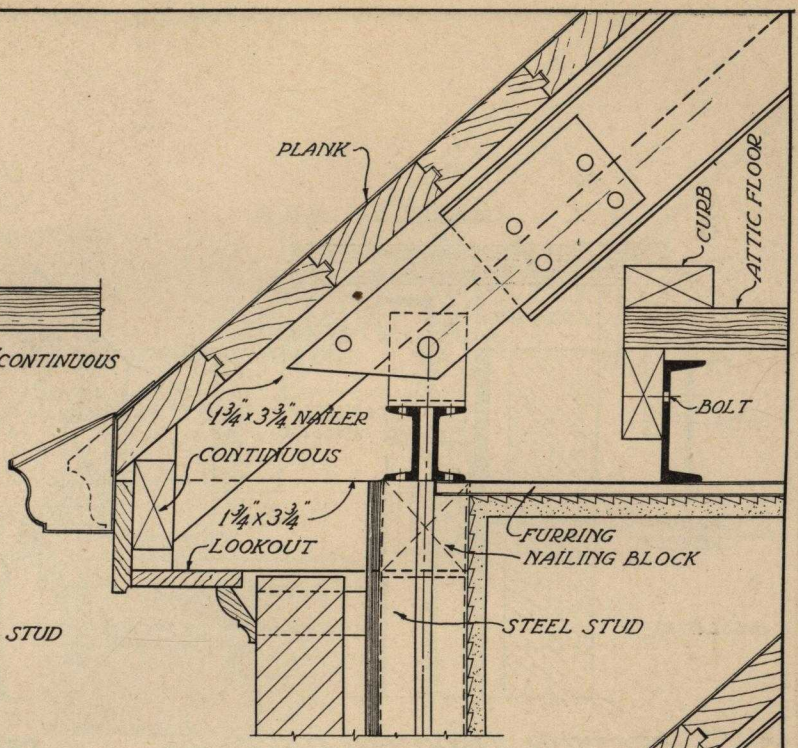
0 — 1"
0 — 6"
SCALE



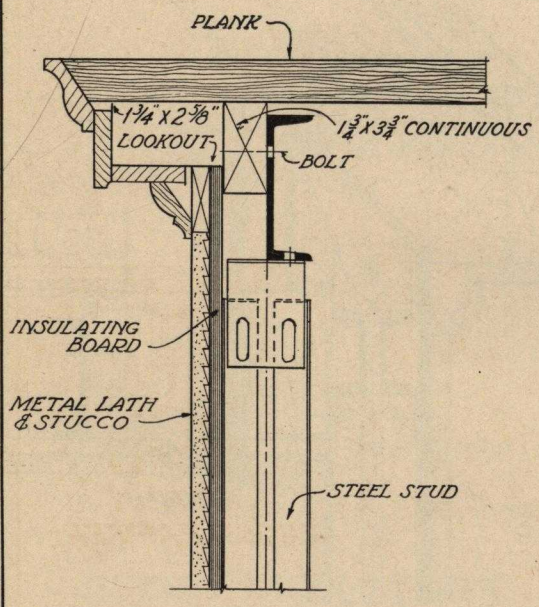
DATE	ROOF CONSTRUCTION STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-12 0" 6" SCALE



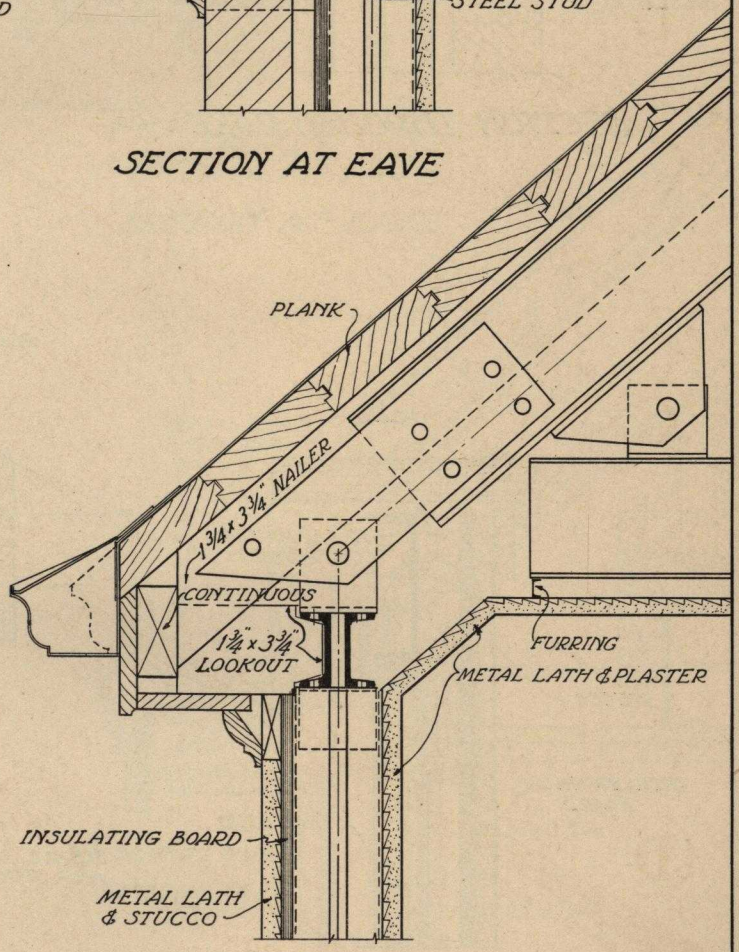
SECTION THRU RAKE



SECTION AT EAVE

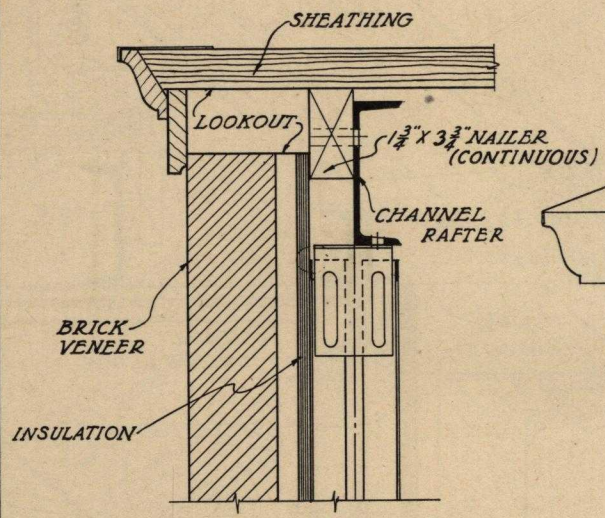


SECTION THRU RAKE

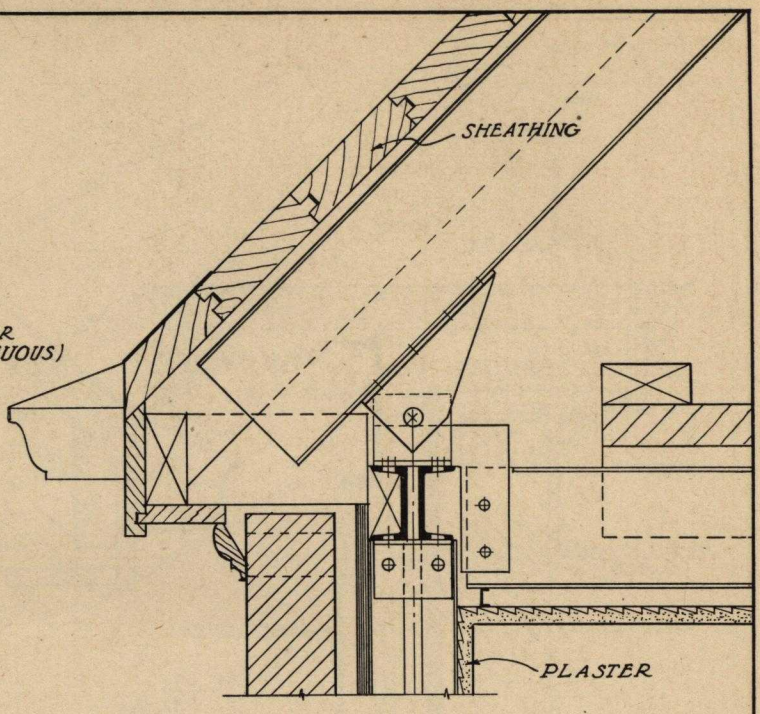


SECTION AT EAVE

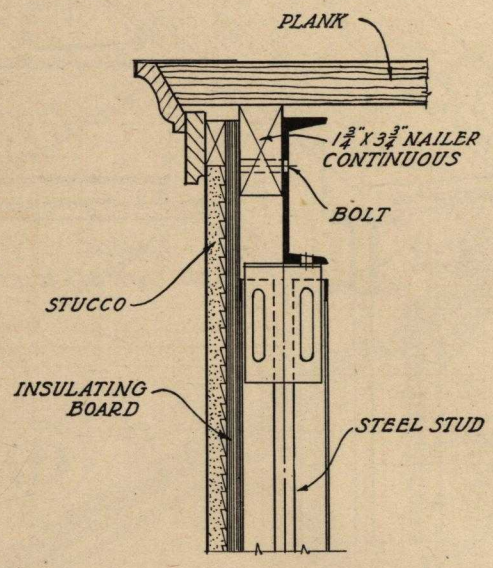
DATE	CORNICE - HANGING GUTTER STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC - MARSHALL CORPORATION PITTSBURGH	D-13 0" — 6" SCALE



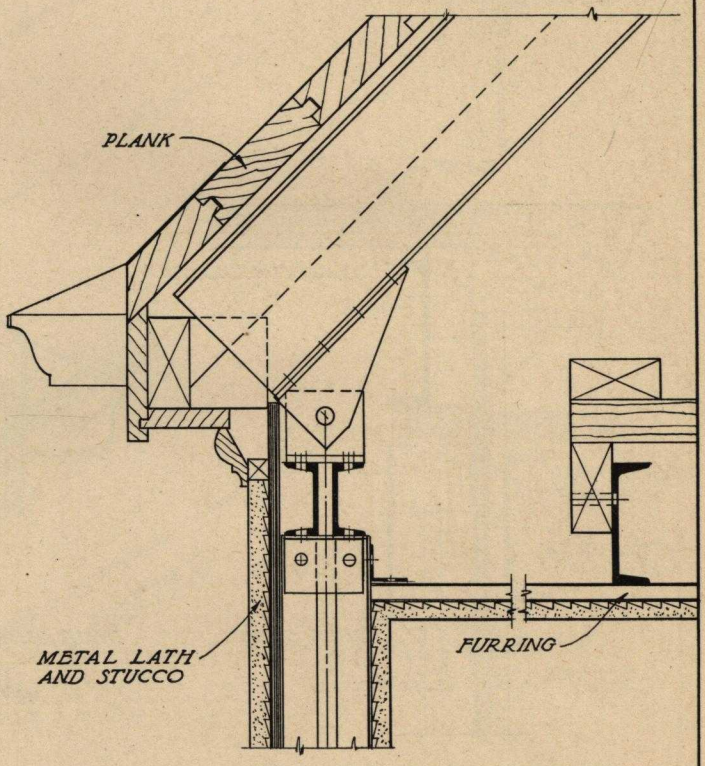
SECTION THROUGH RAKE



SECTION AT EAVE

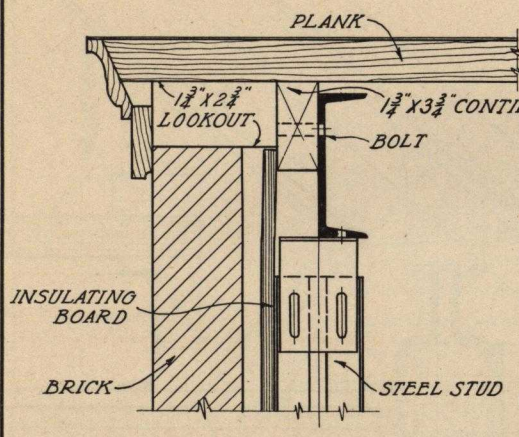


SECTION THROUGH RAKE

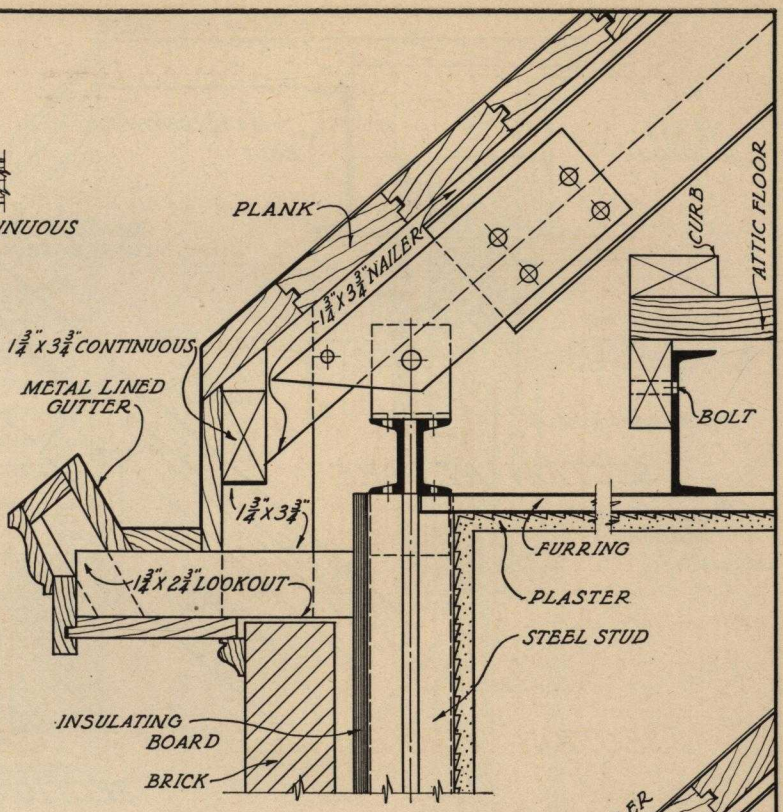


SECTION AT EAVE

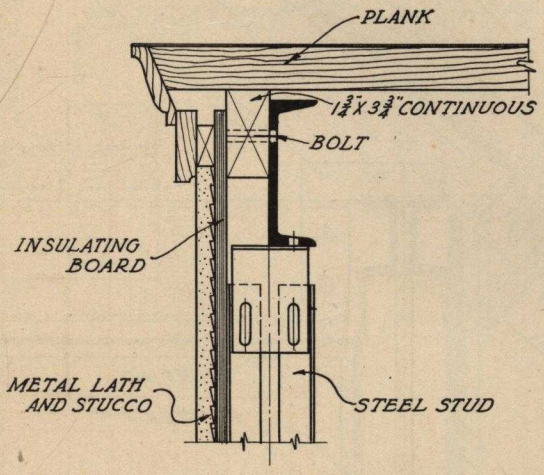
DATE	CORNICE - HANGING GUTTER STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-14 0" 6" SCALE



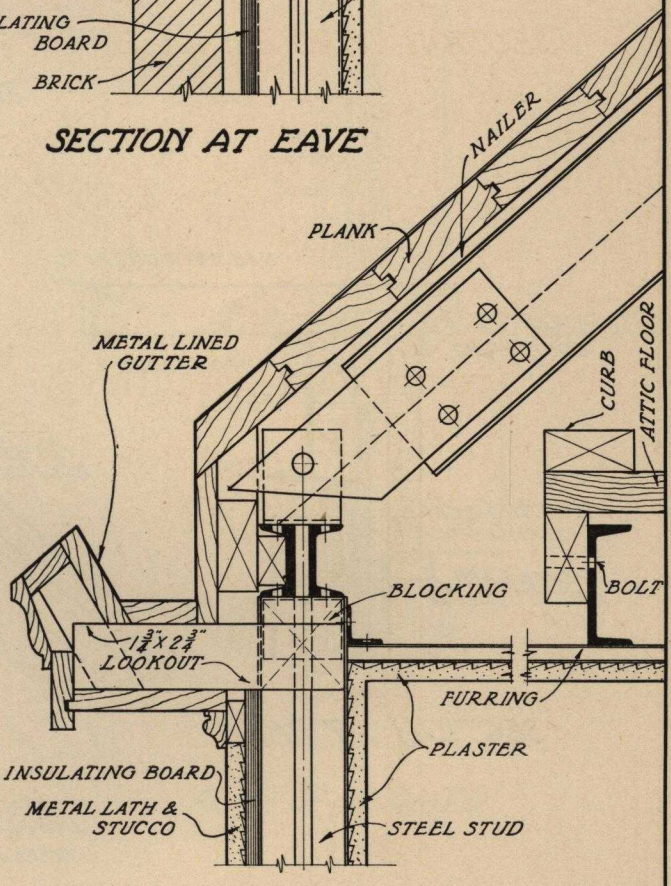
SECTION THROUGH RAKE



SECTION AT EAVE

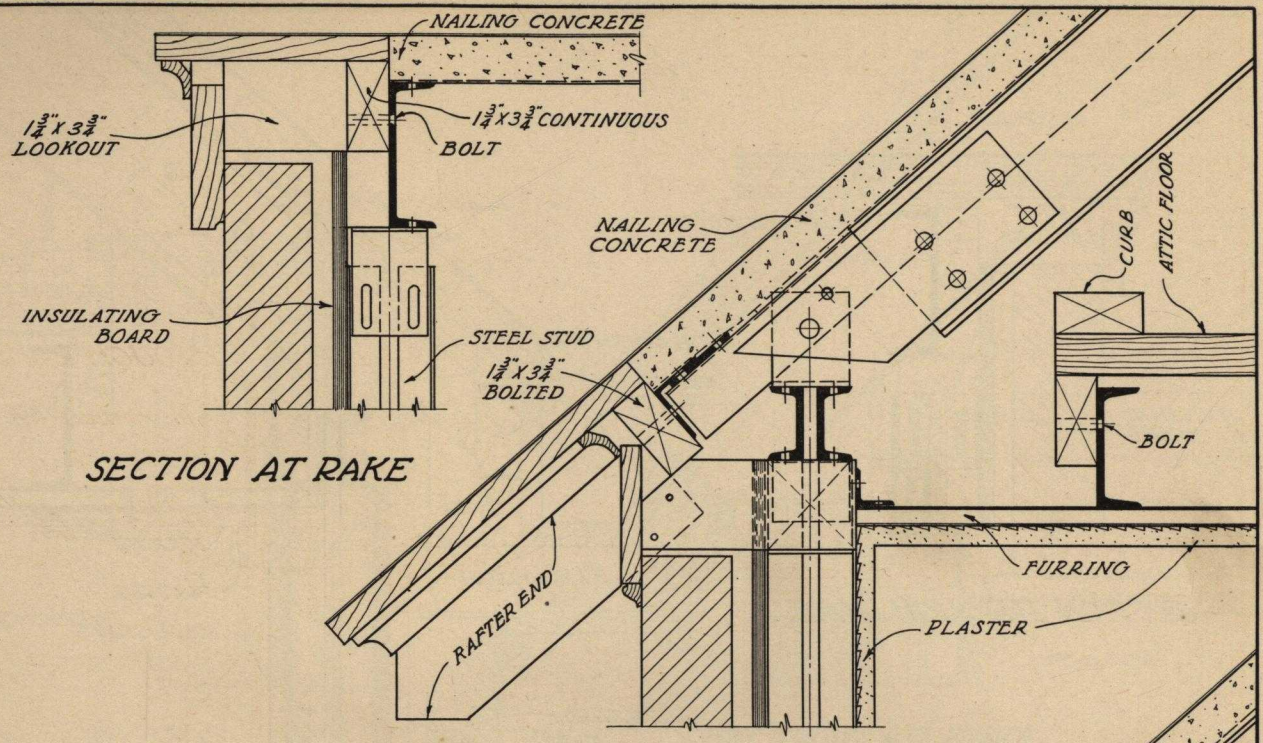


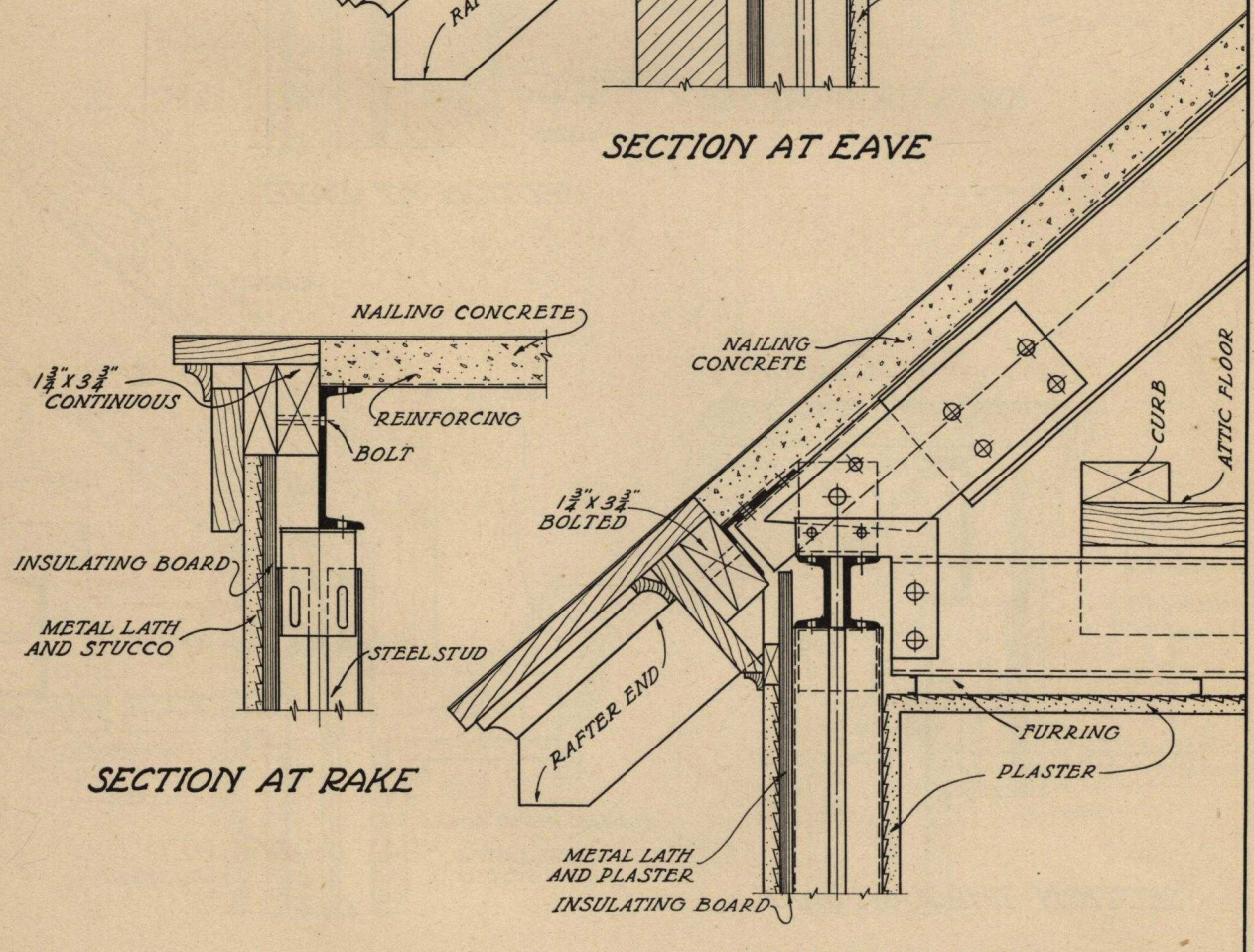
SECTION THROUGH RAKE



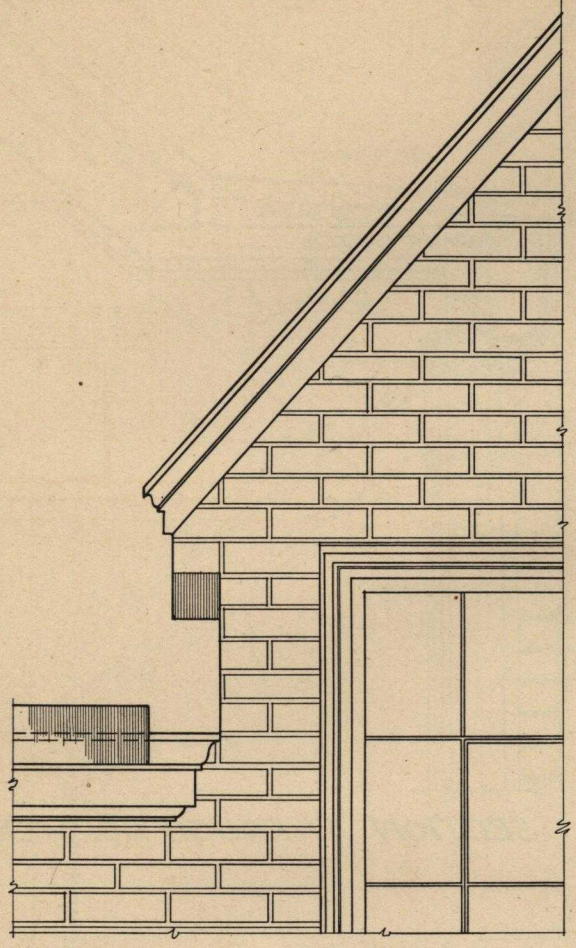
SECTION AT EAVE

DATE	CORNICE-BUILT IN GUTTER STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-15 0" — 6" SCALE

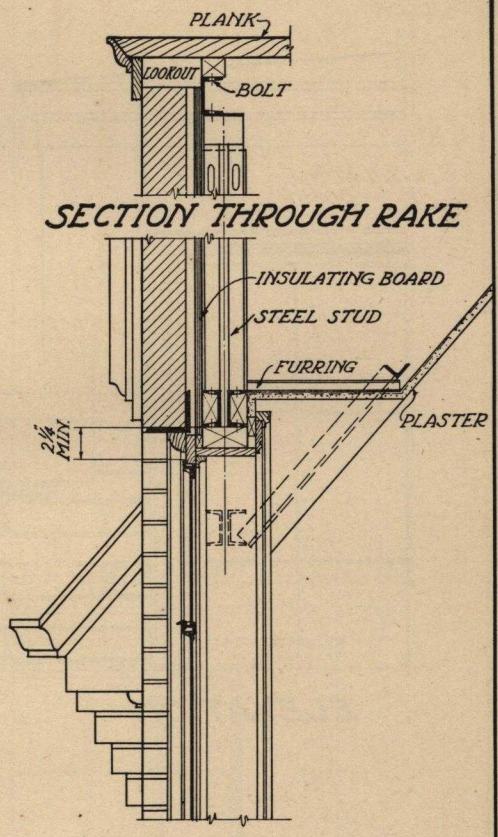




DATE	OPEN RAFTER CORNICE STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-16 0" 6" SCALE

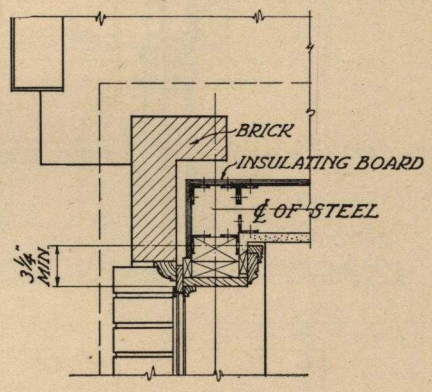


ELEVATION OF DORMER



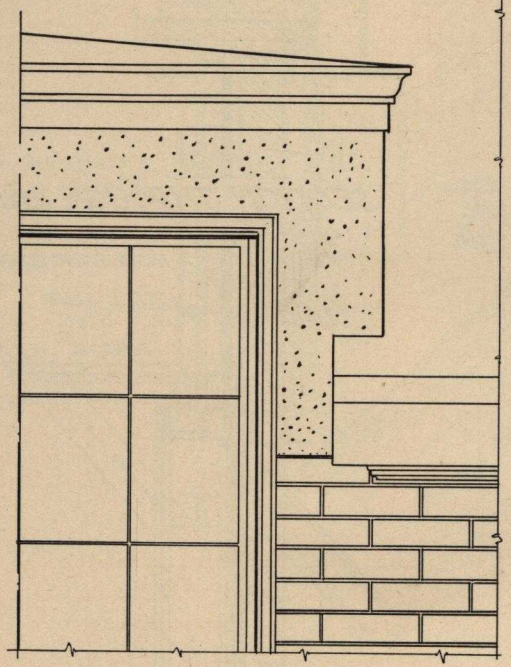
SECTION THROUGH RAKE

SECTION THROUGH DORMER

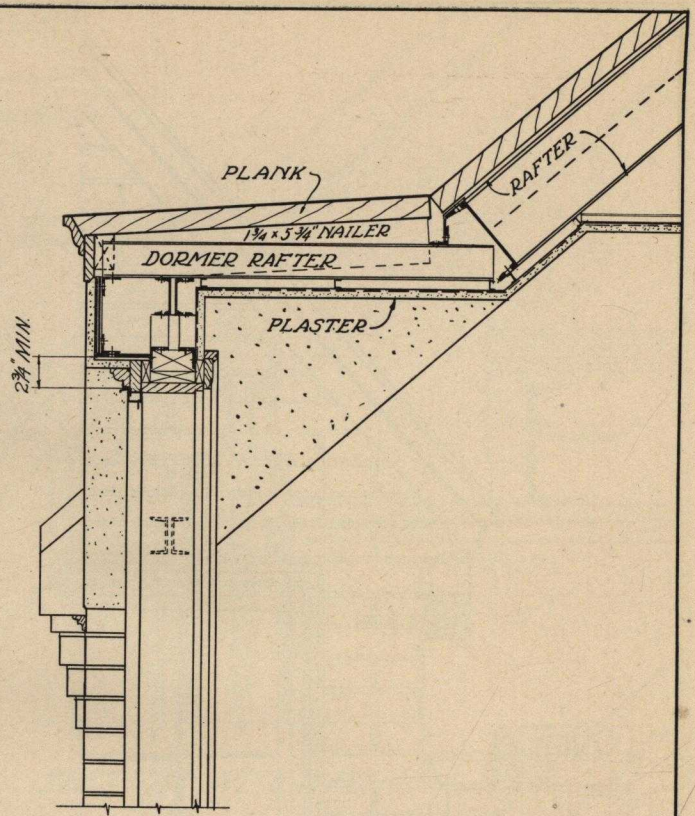


PLAN OF DORMER

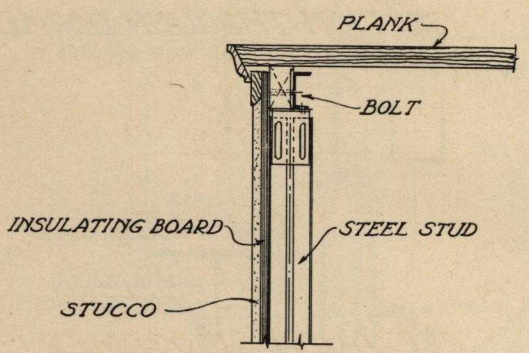
DATE	DORMER STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-17 0 — 12 SCALE



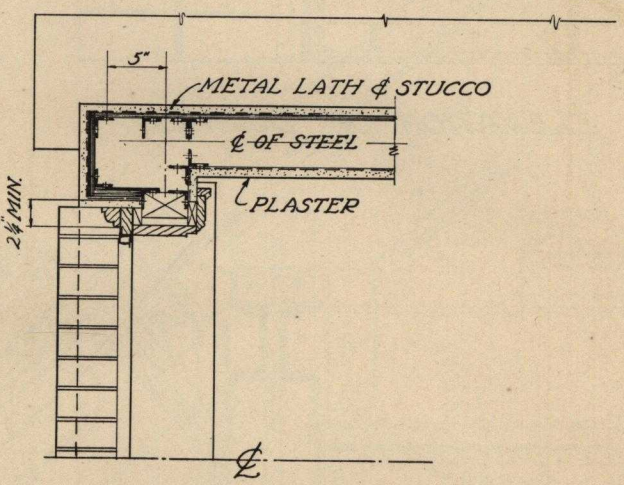
ELEVATION



SECTION THROUGH DORMER

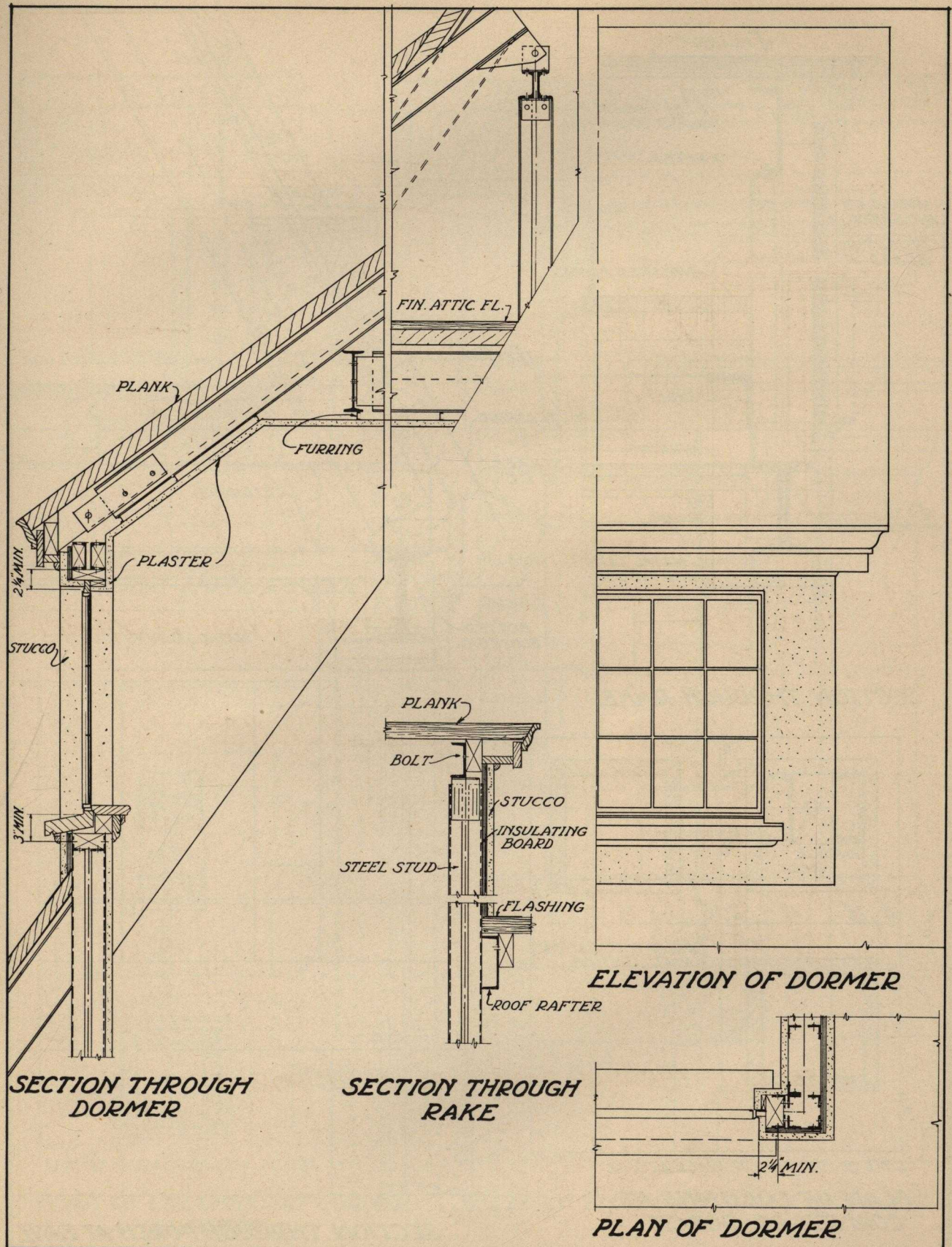


SECTION THROUGH RAKE



PLAN OF DORMER

DATE	DORMER STEEL FRAME HOUSE CO ·SUBSIDIARY OF·McCLINTIC - MARSHALL·CORPORATION· PITTSBURGH	D 17A 0" 12" SCALE



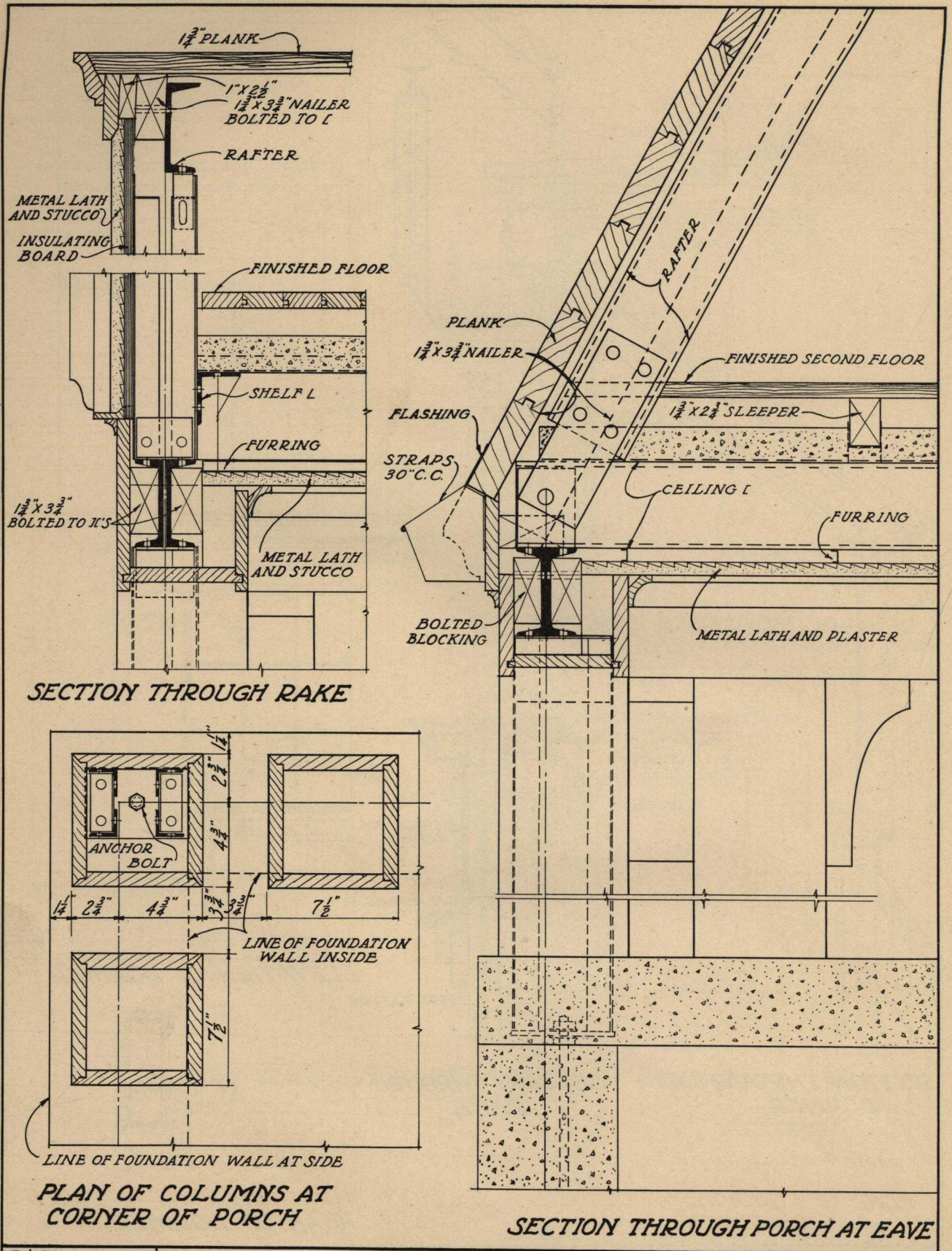
SECTION THROUGH DORMER

SECTION THROUGH RAKE

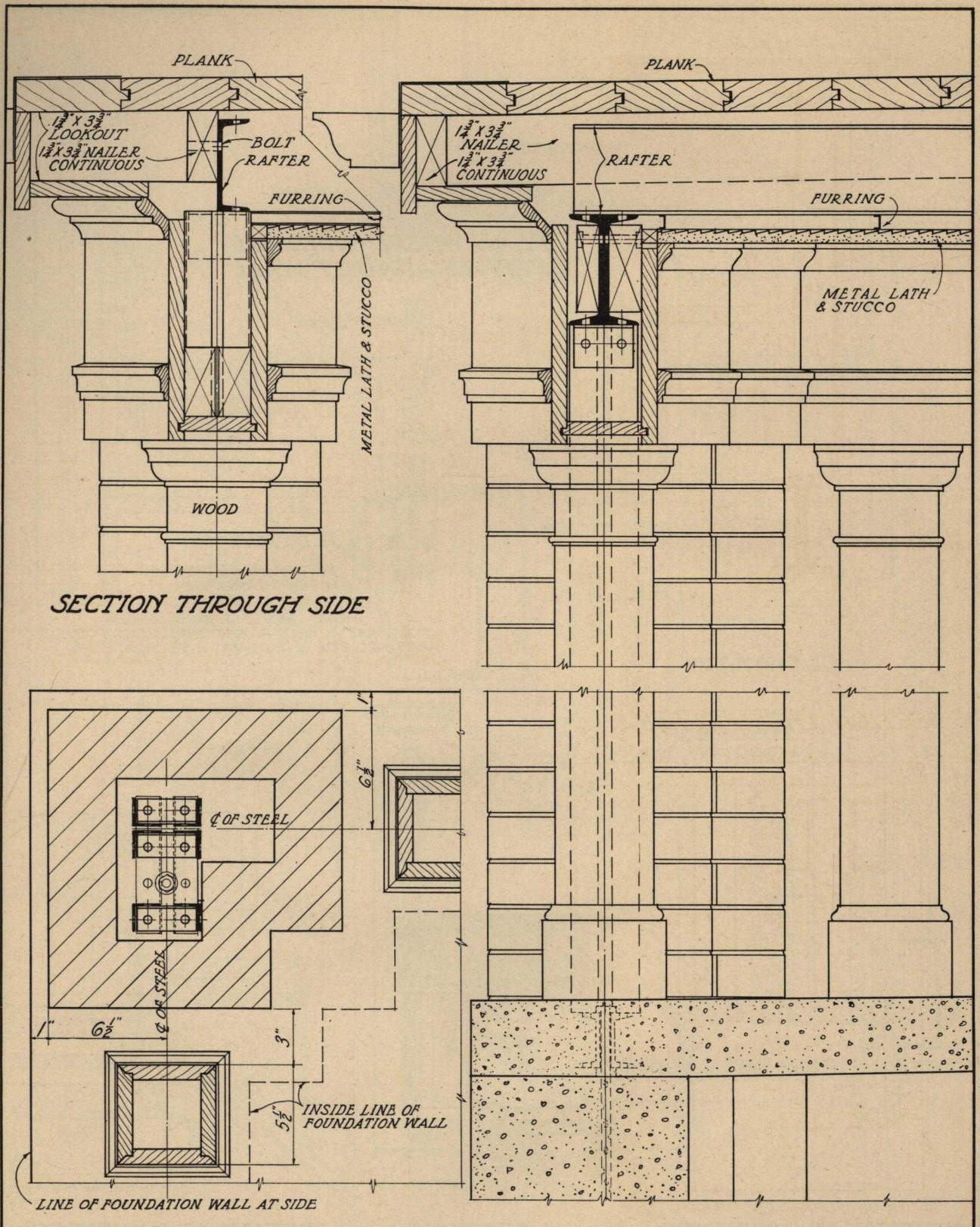
ELEVATION OF DORMER

PLAN OF DORMER

DATE	DORMER STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC - MARSHALL CORPORATION PITTSBURGH	D 17 B 0' 12" SCALE



DATE	PORCH DETAILS STEEL FRAME HOUSE CO SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION PITTSBURGH	D - 18 0" — 6" SCALE

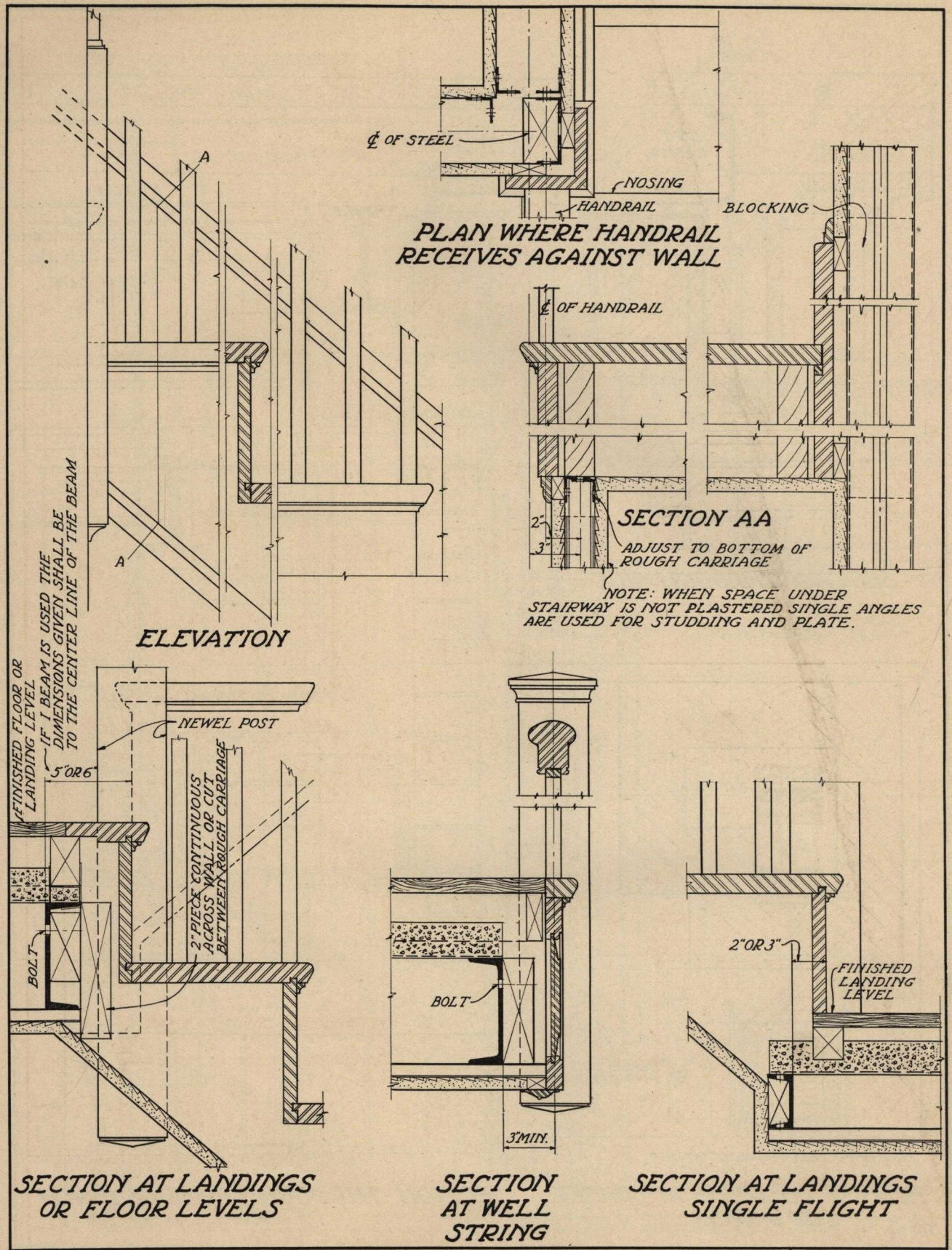


SECTION THROUGH SIDE

PLAN OF COLUMNS AT CORNER OF PORCH

SECTION THROUGH FRONT OF PORCH

DATE	PORCH DETAILS STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-19 0" — 6" SCALE



DATE

WOOD STAIRS

STEEL FRAME HOUSE CO

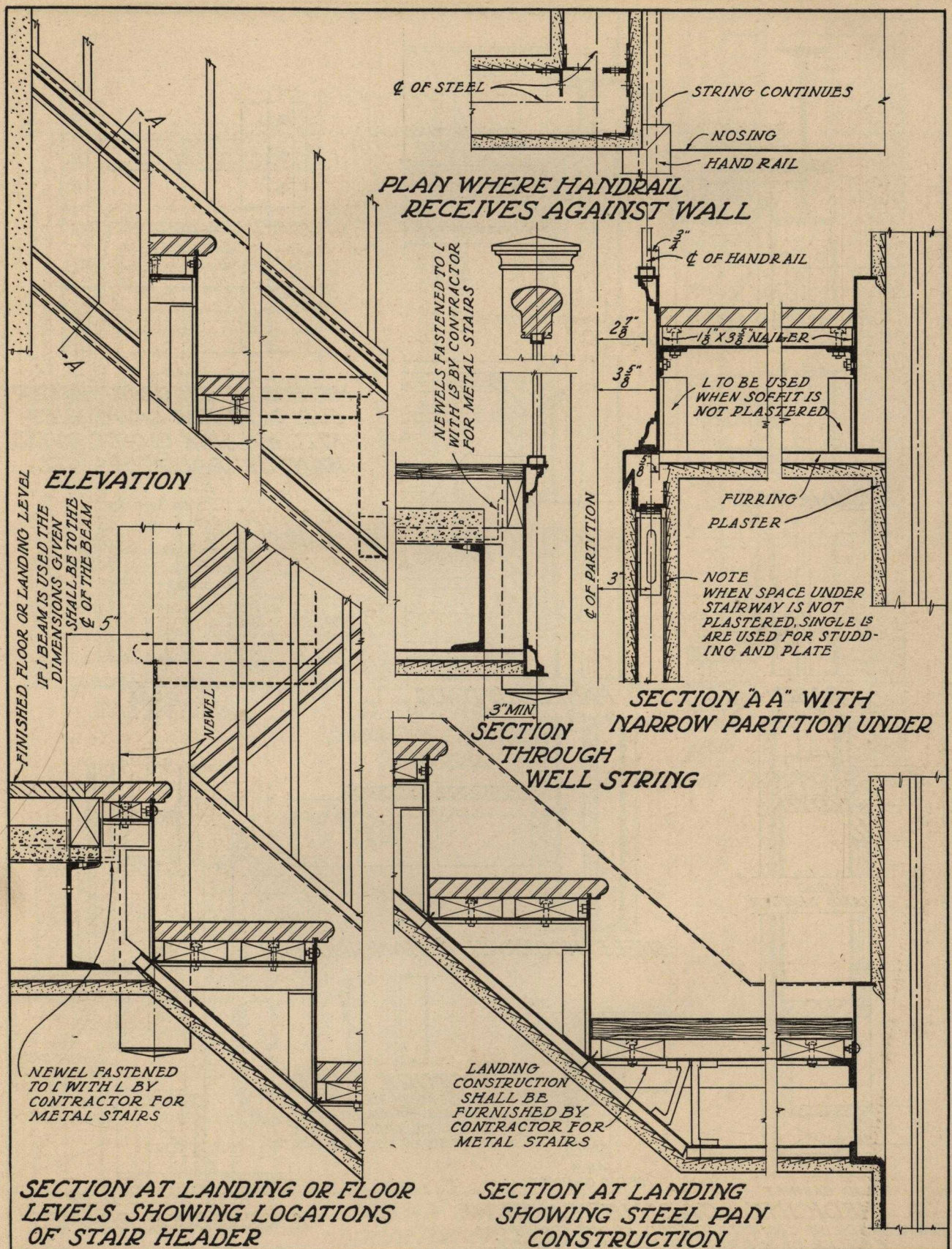
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION

PITTSBURGH

D-20

0" — 6"

SCALE


℄ OF STEEL
STRING CONTINUES
NOSING
HAND RAIL
PLAN WHERE HANDRAIL RECEIVES AGAINST WALL
A
A
ELEVATION
NEWELS FASTENED TO ⊏ WITH L'S BY CONTRACTOR FOR METAL STAIRS
3/4"
℄ OF HANDRAIL
2 7/8"
1 1/8" X 3 5/8" NAILER
3 5/8"
L TO BE USED WHEN SOFFIT IS NOT PLASTERED
FURRING
PLASTER
℄ OF PARTITION
3"
NOTE WHEN SPACE UNDER STAIRWAY IS NOT PLASTERED, SINGLE L'S ARE USED FOR STUDDING AND PLATE
SECTION "A A" WITH NARROW PARTITION UNDER
FINISHED FLOOR OR LANDING LEVEL
IF I BEAM IS USED THE DIMENSIONS GIVEN SHALL BE TO THE ℄ OF THE BEAM
5"
NEWEL
3" MIN
SECTION THROUGH WELL STRING
NEWEL FASTENED TO ⊏ WITH L BY CONTRACTOR FOR METAL STAIRS
LANDING CONSTRUCTION SHALL BE FURNISHED BY CONTRACTOR FOR METAL STAIRS
SECTION AT LANDING OR FLOOR LEVELS SHOWING LOCATIONS OF STAIR HEADER
SECTION AT LANDING SHOWING STEEL PAN CONSTRUCTION

DATE

METAL STAIRS

STEEL FRAME HOUSE CO

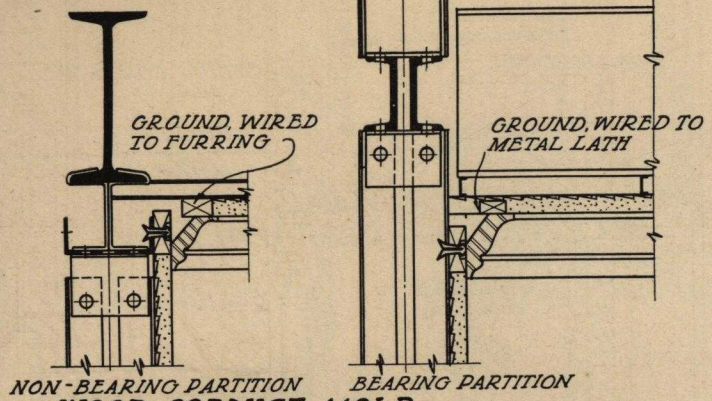
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION

PITTSBURGH

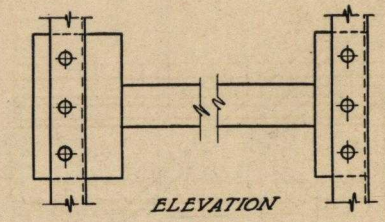
D-21

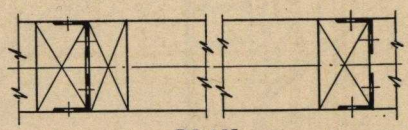
0' 6'

SCALE

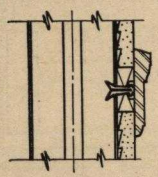


WOOD CORNICE MOLD

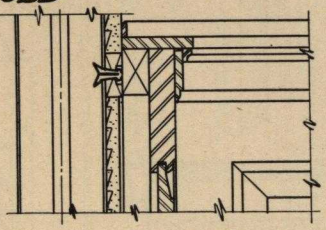


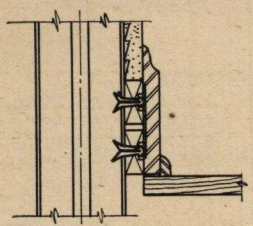


METHOD OF SECURING HANGER SUPPORTS FOR LAVATORIES KITCHEN SINK, CLOSET, TANKS, HANGING RADIATORS, ETC.

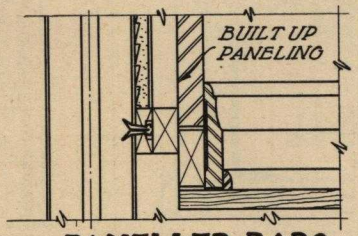


CHAIR RAIL

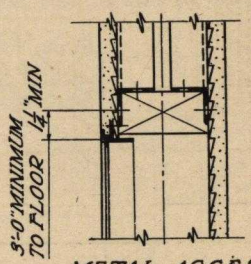




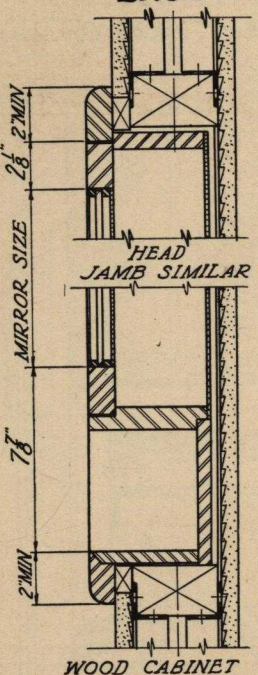
BASE



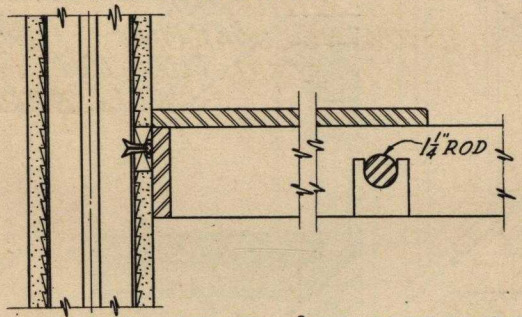
PANELLED DADO



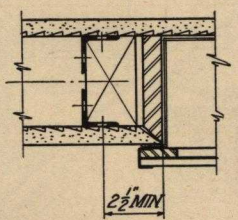
METAL ACCESS DOOR



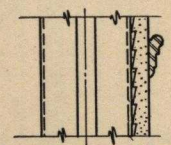
WOOD CABINET



SHELF HOOKRAIL & HANGING ROD



JAMB
METAL CABINET

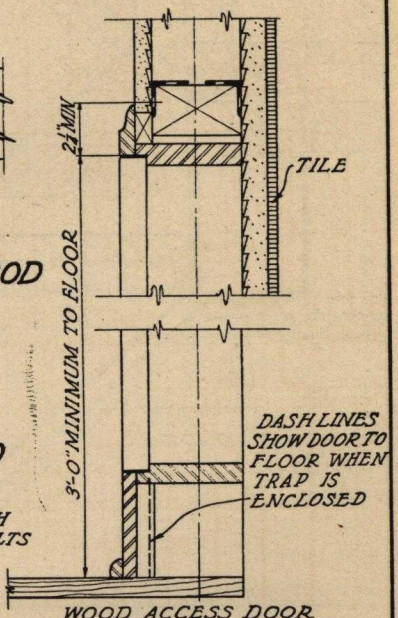


PICTURE MOLD

NOTE: PICTURE MOLD & SMALL PANEL MOLDS SHALL BE APPLIED WITH FLAT HEAD TOGGLE BOLTS

MEDICINE CABINETS

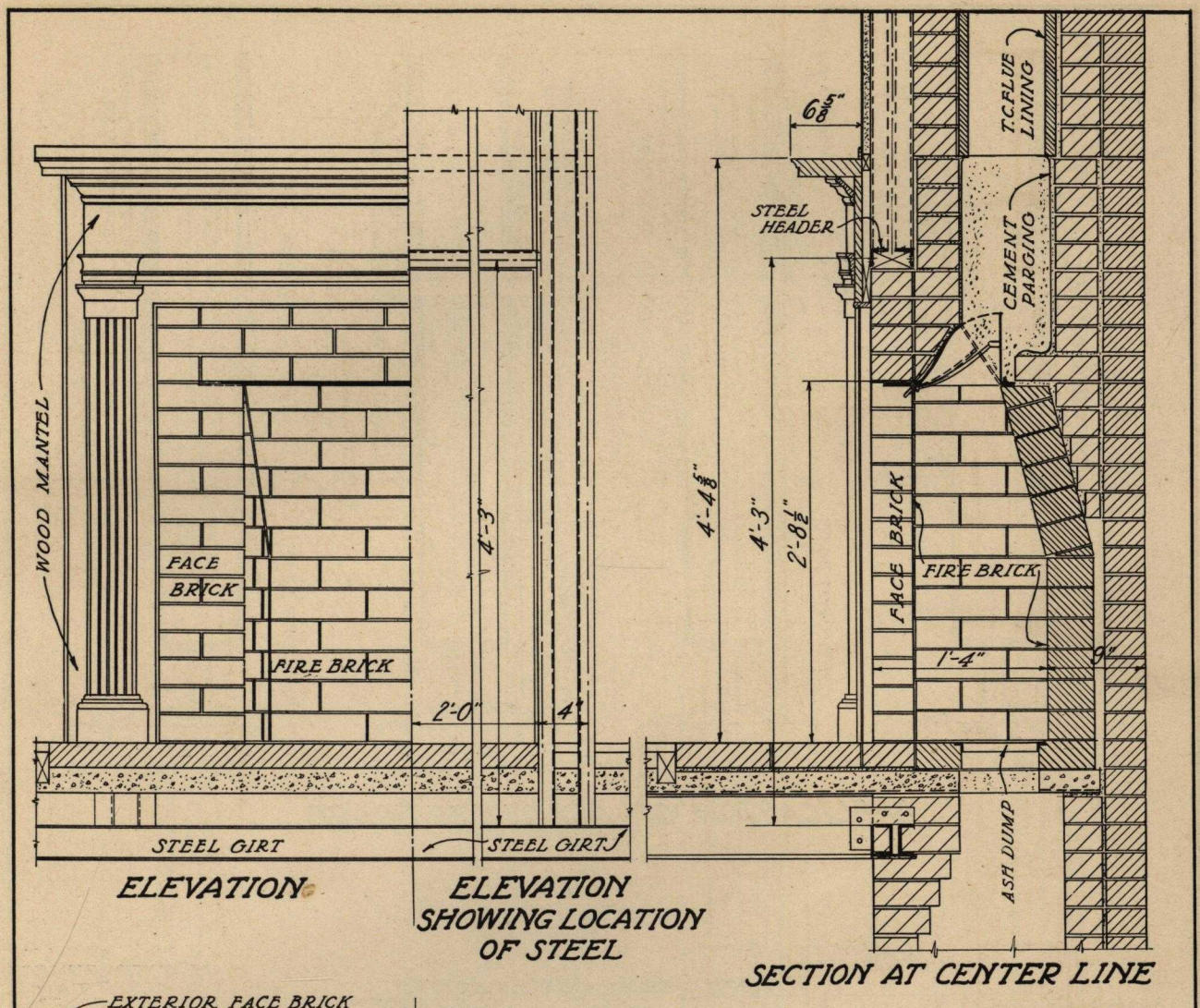
NOTE: MEDICINE CABINETS PLACED ABOUT 5'-3" FROM CENTER OF MIRROR TO FINISHED FLOOR



WOOD ACCESS DOOR

ACCESS DOOR FRAMES

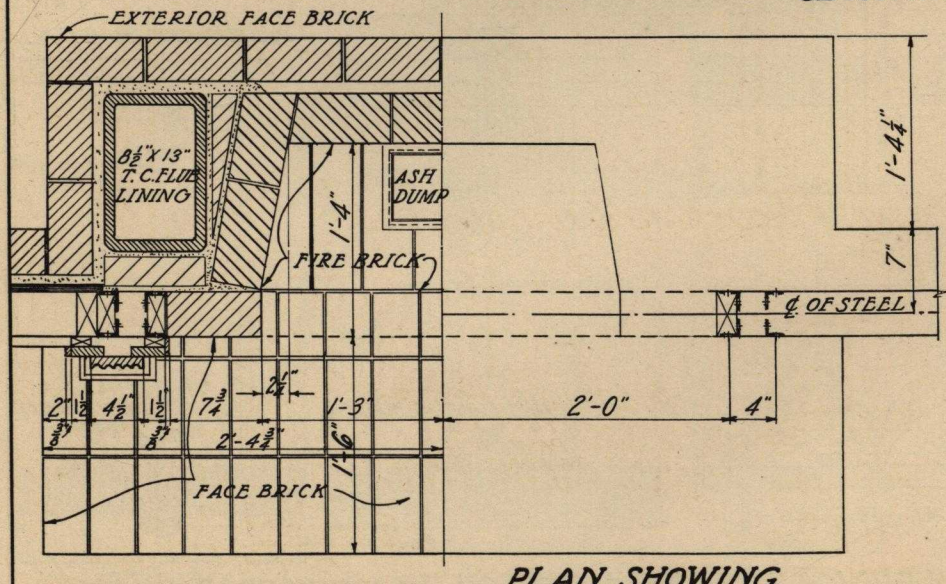
DATE	INTERIOR FINISH STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-22 0" 6" SCALE



ELEVATION

ELEVATION SHOWING LOCATION OF STEEL

SECTION AT CENTER LINE



PLAN OF FIREPLACE

PLAN SHOWING LOCATION OF STEEL

DATE

MANTEL

STEEL FRAME HOUSE CO

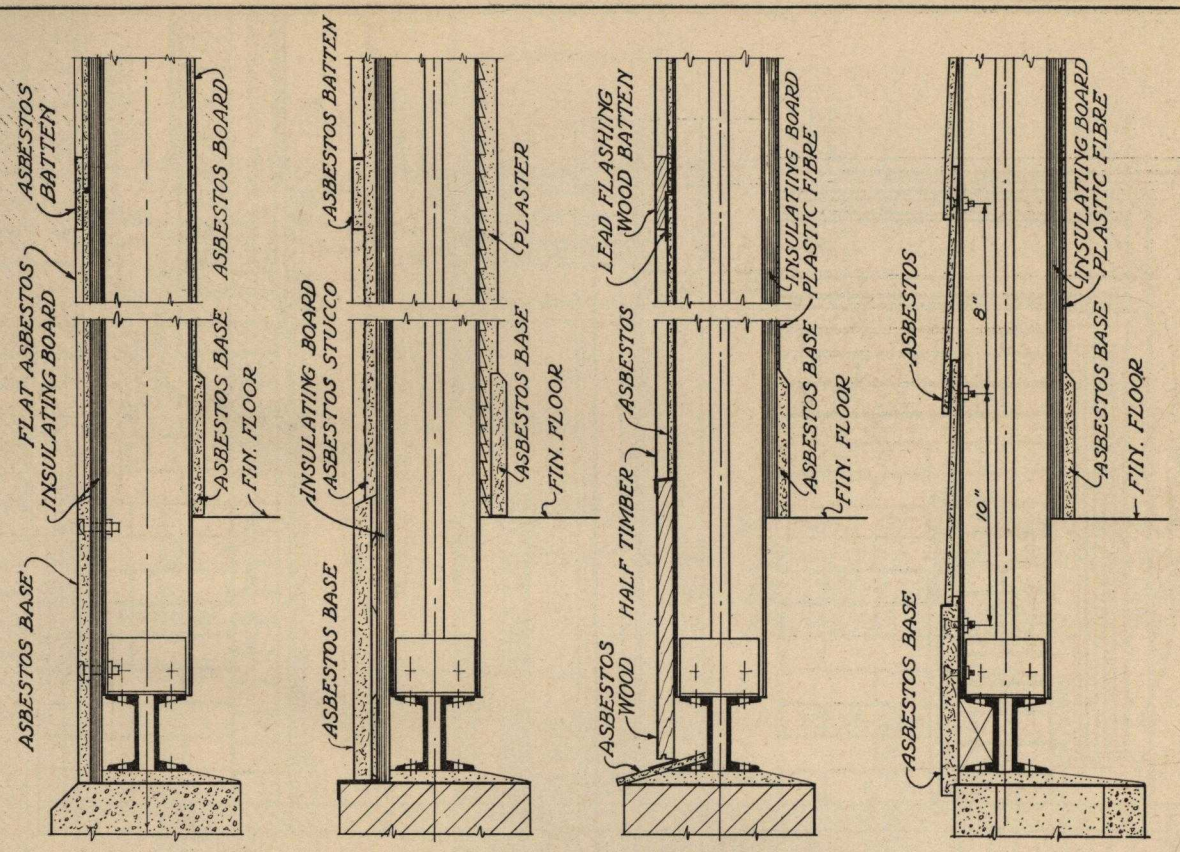
SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION

PITTSBURGH

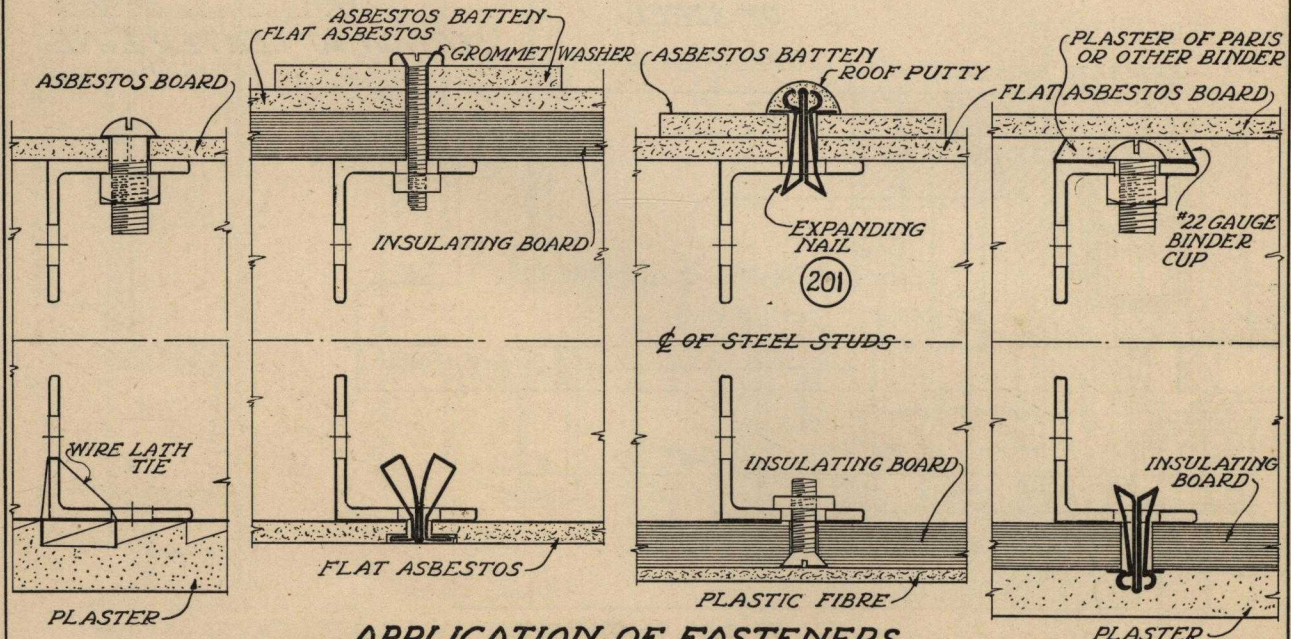
D-23

0" 12"

SCALE

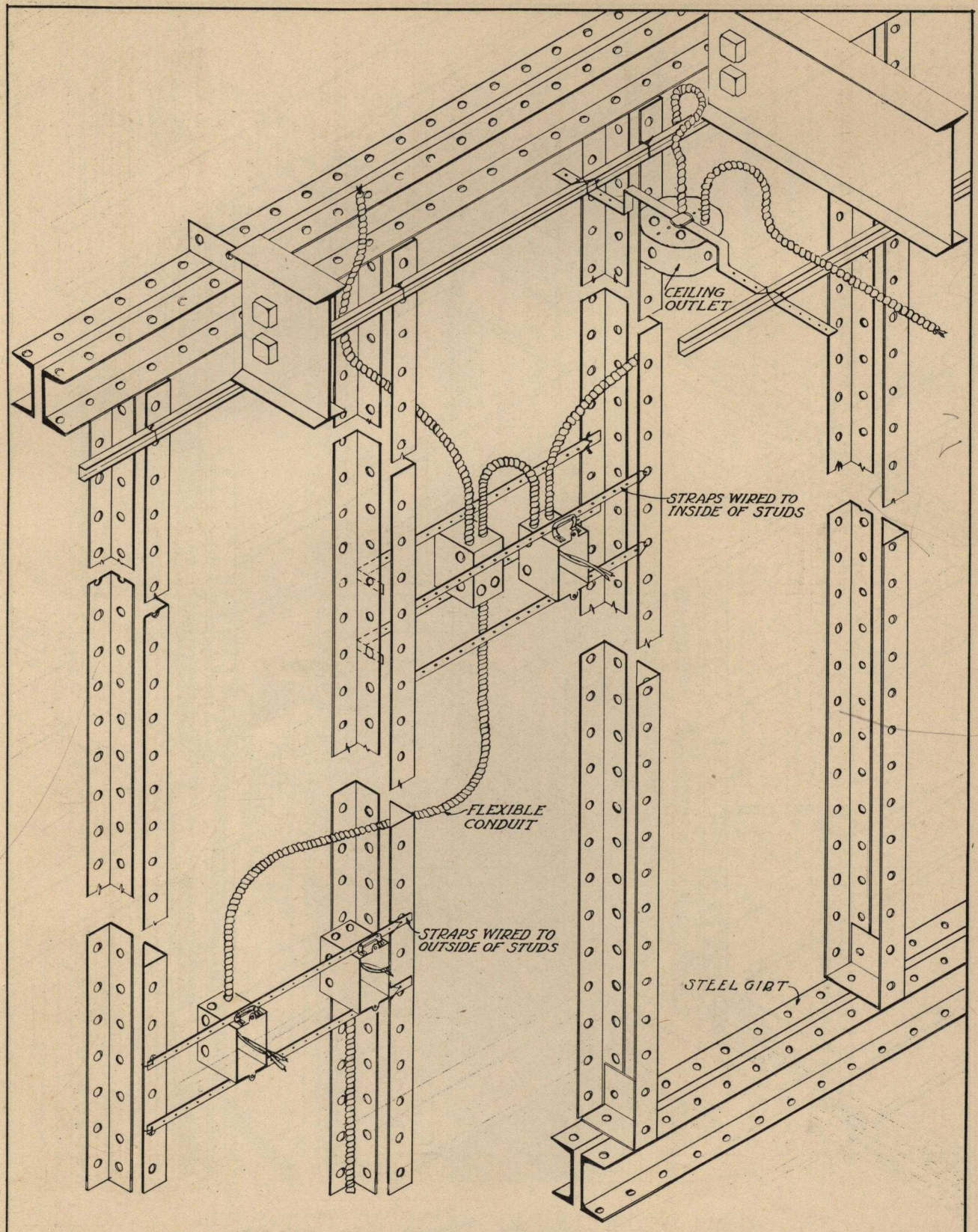


APPLICATION OF ASBESTOS BOARD



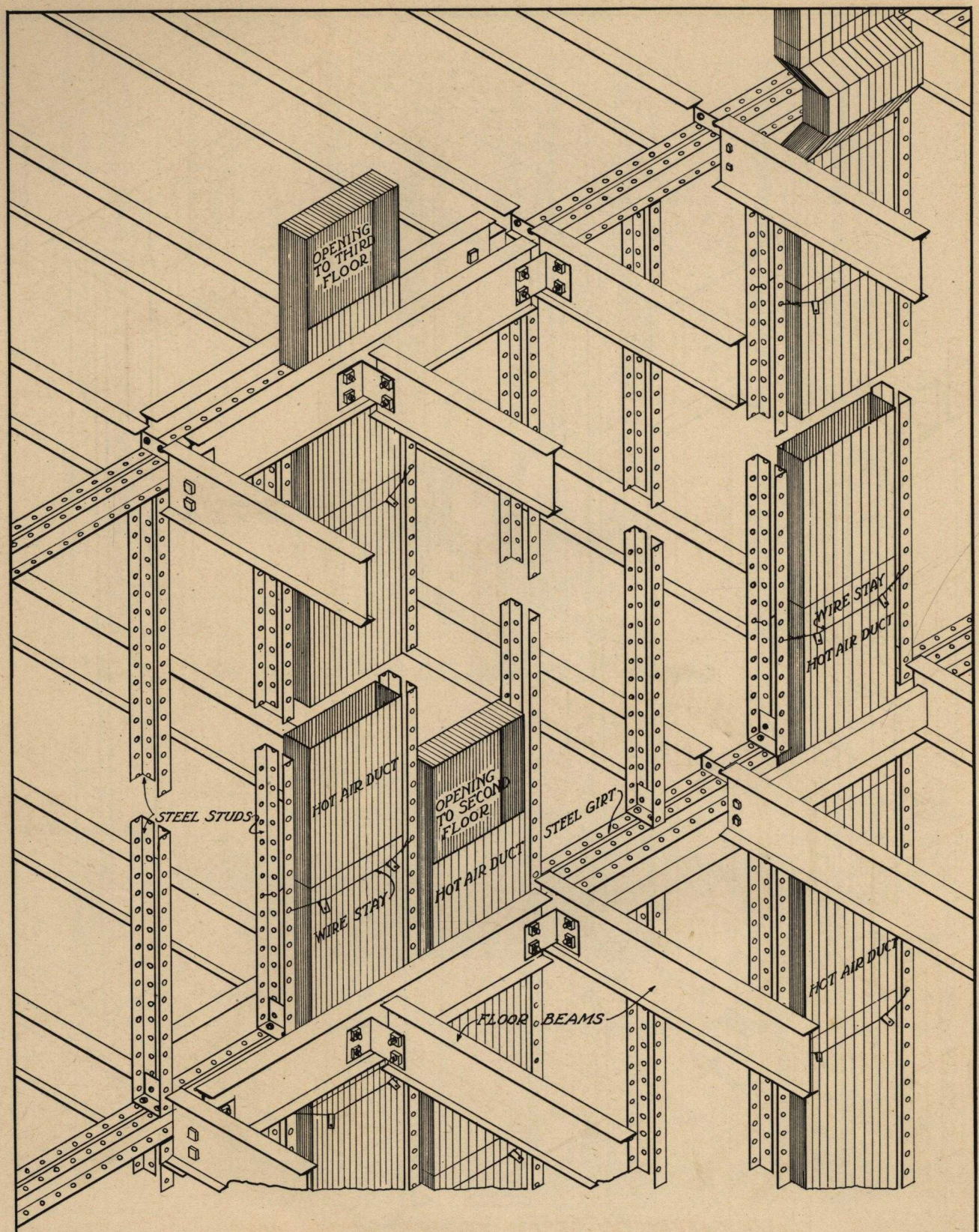
APPLICATION OF FASTENERS

DATE	ASBESTOS-BOARD STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-24 0 — 1" 0 — 6 SCALE



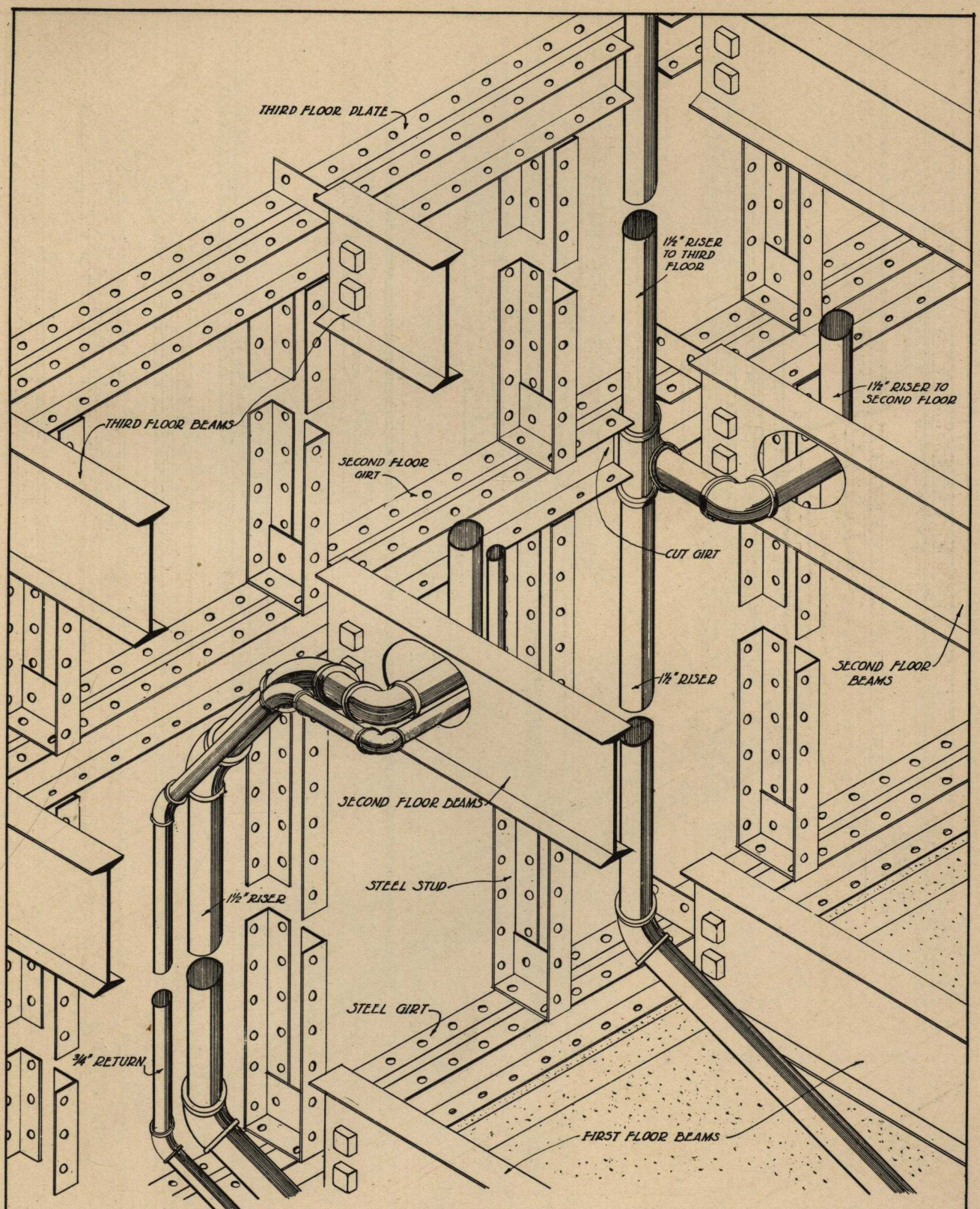
APPLICATION OF SWITCH BOXES AND OUTLETS

DATE	FLEXIBLE CONDUIT WIRING STEEL FRAME HOUSE CO SUBSIDIARY OF McCLINTIC-MARSHALL CORPORATION PITTSBURGH	D-25 0 — 6 SCALE



APPLICATION OF METAL HOT AIR DUCT

DATE	HEATING STEEL FRAME HOUSE CO SUBSIDIARY · OF · McCLINTIC · MARSHALL · CORPORATION · PITTSBURGH	D-26 0 — 12 SCALE



APPLICATION OF STEAM OR HOT WATER PIPES

DATE

HEATING

STEEL FRAME HOUSE CO

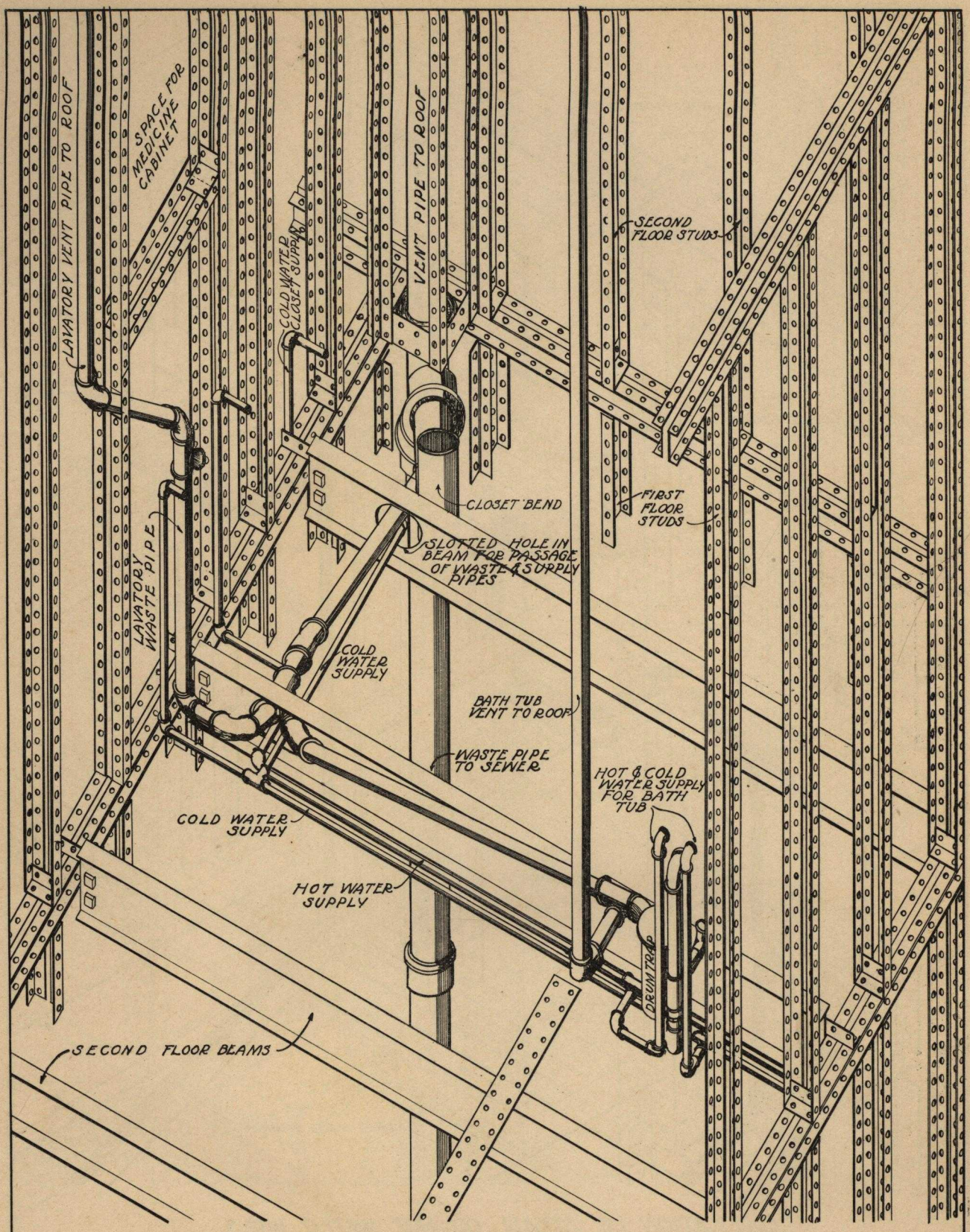
SUBSIDIARY · OF · McCLINTIC - MARSHALL · CORPORATION

PITTSBURGH

D 27

0" 6"

SCALE


LAVATORY VENT PIPE TO ROOF
SPACE FOR MEDICINE CABINET
COLD WATER CLOSET SUPPLY
VENT PIPE TO ROOF
SECOND FLOOR STUDS
CLOSET BEND
FIRST FLOOR STUDS
SLOTTED HOLE IN BEAM FOR PASSAGE OF WASTE & SUPPLY PIPES
LAVATORY WASTE PIPE
COLD WATER SUPPLY
BATH TUB VENT TO ROOF
WASTE PIPE TO SEWER
HOT & COLD WATER SUPPLY FOR BATH TUB
COLD WATER SUPPLY
HOT WATER SUPPLY
DRUM TRAP
SECOND FLOOR BEAMS

APPLICATION OF SOIL, WASTE, AND WATER PIPES

DATE	PLUMBING STEEL FRAME HOUSE CO SUBSIDIARY OF Mc CLINTIC - MARSHALL CORPORATION PITTSBURGH	D-28 0" 12" SCALE

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